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Clinical Lecture.

HÆMOPTYSIS: CONSECUTIVE TUBERCULOSIS.

A Clinical Lecture[1] delivered in the Hôpital Pitié,

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Gentlemen:—For thirty years I have defended Morton's theory of phthisis by hæmoptysis; I have shown from my own personal observations that the causal influence of hæmoptysis on the development of tuberculosis is explicable by my doctrine of pulmonary *hypotrophy;*[2] and I have reported in my *Clinique de l' hôpital Lariboisière*, as well as in my "Curability and Treatment of Pulmonary Phthisis," numerous cases which prove clearly this relation of cause and effect between hæmoptysis and tuberculosis.

But however convincing they may seem to be, none of these observations equal in precision, in demonstrative value, that which is the subject of my lecture to-day; here the causal influence of hæmoptysis is put beyond the shadow of a doubt, and what is more, the autopsy has confirmed this etiological judgment in a striking manner.

A robust man, 48 years old, a painter, came under my care, in ward Jenner, No. 7, on the fifteenth of December, 1886. I showed him to you the next day, and I presume you have not forgotten his appearance or the train of symptoms which he presented. Lying in a state of prostration, his eyes half closed, his complexion one of complete pallor, you noticed how shallow and frequent was his respiration, how rapid, small and indistinct was his pulse, and by the head of his bed you remember there were two spittoons full of bright red blood, which had been expectorated during the latter part of the night, and especially since three o'clock in the morning. We learned that for four days he had raised blood of the same quality repeatedly and in great quantities. The blood was rusty, frothy; it had been ejected during violent attacks of coughing. There was no doubt as to his condition, the diagnosis was plain; it was a case of hæmoptysis, whose onset dated back four days, to the 12th of December.

The hemorrhage which caused the hæmoptysis certainly did not originate in the pulmonary parenchyma. Pulmonary hemorrhage indeed, whether in focus or infiltrated, gives rise to an expectoration of black, non-ærated blood, composed generally of distinct sputa. One glance at the blood raised by our patient was enough to lead us to reject this hypothesis, and I have only alluded to this contingency in order to freshen your memories.

The hemorrhage which produced this hæmoptysis, then, had its seat in the bronchial tubes; it was a bronchorrhagia, and if the blood expectorated perfectly retained the character of arterial blood, it was because it was voided as it had been effused into the bronchi. Granting this as to the seat of the hemorrhage, what was its source? From what vessels did it come? On account of its bright color it could not have come from one of the pulmonary arteries; it must have been one of the bronchial arteries, or pulmonary veins, which had given way. Between these two possibilities we could not pronounce positively from the character of the blood. We shall soon see that the study of the case will warrant a conclusion which is at least probable.

[1] Translated by Kate C. Hurd, M.D.

[2] A state of under nutrition of the lungs, insisted upon by Jaccoud as a condition existing before phthisis.

Hæmoptysis by broncorrhagia—such, then, is the symptomatic diagnosis; to this first stage of judicial inquiry should succeed the pathogenic diagnosis. What is the cause of this hæmoptysis? The prognosis, the nosological significance, in a word the medical diagnosis, depends on the reply to this question. The solution is often difficult; in order to obtain it with certainty, you should always conform to the method which you have seen me apply in the case before us. The process is as follows: 1. Ascertain the state of the lungs. 2. Determine the conditions under which the hæmoptysis appeared. 3. If the examination proves the existence of any lesion in the lungs, determine the chronological relation between this lesion and the hæmoptysis.

Our first point then is to ascertain the condition of the lungs. On examination we find the right lung sound; as for the left lung, it is equally sound in front, but behind, at the median part, a little below the spine of the scapula, in a limited area no larger than the palm of the hand, I have discovered since the admission of the patient a focus of moderate dulness and of fine sub-crepitant râles. In the next place, we want to determine the condition under which the hæmoptysis appeared. The conditions possess a strange definiteness in this case. November 12, the Sunday before his admission to the hospital, this man being in perfect health, ran rapidly for several minutes in order to overtake an omnibus; just at the moment, when, having nearly reached it, he was stretching out his arm to grasp the railing of the the omnibus, he was suddenly seized with a violent fit of coughing and immediately on the spot he raised a great quantity of bright red blood, like that which we have this morning seen in the spittoon.

By the time he had returned to his home the hæmoptysis had ceased. On Sunday evening he had a second attack, then another on Monday, and so on each day, until he entered the hospital, Wednesday, December 15. During the interval between Sunday and Wednesday, a fever set in, for his temperature on entering was 101°.3 F., the next morning, it is true, it was only 100°, but that evening it mounted to 102°.9. In fine, the hemorrhage as you see was caused by the exertion of rapid running.

The third point is to determine the chronological relation between the lesion in the lungs and the hæmoptysis. This relation is very clear. The hæmoptysis appeared suddenly while the patient was in a state of perfect health; it was then the primary incident; the lesion in the left lung and the fever are secondary effects. This inquiry brings us then to the following diagnostic conclusion: hæmoptysis following a violent muscular effort or strain in an individual whose respiratory apparatus was healthy. But this conclusion, perfectly justifiable though it may be, since it is the simple expression of the facts, is evidently insufficient; there must have existed in this man some other condition which caused his exertion to bring on a hemorrhage. What was this condition?

Must we admit a tuberculosis, totally latent until the very moment of his unfortunate run? Everything negatives this assumption. This man has never had a cough, nor has he ever had any disease of the respiratory organs; his health was in no way changed during the months preceeding the accident; and, moreover, his family antecedents are all right: his brother, sister and children are in excellent health; finally, if we found in the median lobe of the left lung the focus of râles, which I pointed out to you, weare none the less certain that the apices are quite sound. Under these conditions, latent tuberculosis is not merely improbable, it is an impossibility.

From this we are now led to the inquiry whether the condition which rendered his exertion a generator of hemorrhage may not be connected with the circulatory apparatus, although, *a priori*, the character of the blood expectorated scarcely justifies the idea of a hemorrhage of cardiac origin.

The examination shows a cardiopathy, constituted by aortic stenosis and insufficiency, with atheroma of the thoracic aorta. This evidently old lesion had never given rise to any symptom, and it was a profound surprise to the patient to see us inquiring with so much minuteness into all the circumstances of his previous history in order, if possible, to discover some cause for an affection of the heart from which he himself had never experienced the least effect. This search, however, remained of no avail, and we are still in complete ignorance as to the origin of this heart lesion, which may have been a congenital malformation.

However this may be as to the matter of causation, the lesion is there, and modifies the conditions of the cardio-pulmonary circulation in the manner most favorable for the production of hemorrhage. In fact, by this alteration of the aortic orifice, the left ventricle and auricle are kept in an abnormal state of repletion and distention. As a consequence, the pressure is constantly increased in the veins which empty into the left auricle, *i. e.*, the pulmonary veins. Let

there then be an exertion which suddenly raises this already excessive tension, and ruptures will take place in the finer radicles of that portion of the vascular system involved, that is to say, in the alveolo-bronchial plexus of the pulmonary veins.

Such is the cause, and such is the mechanism of the hemorrhage, with which this patient was suddenly seized on the occasion of his violent run. The focus of inflammation in the left lung indicates the spot at which the blood was poured out; it was the effusion which caused this inflammation in the tissue of the lung, and the symptomatic fever.

During the six days which have elapsed since the admission of the patient, we have observed favorable modifications as far as the hemorrhage and fever are concerned, but unfavorable changes in respect to the lesion of the left lung.

The hæmoptysis persisted with the same bright red appearance during the day of the 16th and the night of the 16th; there was none on the seventeenth day, but it returned in the night of the 17th, though in smaller amount, and has twice since been repeated in the night time, but it has ceased since yesterday morning. The fever fell to 100°, as you see by the tracing, but yesterday afternoon it went up to 102.°2, so that we cannot yet prognosticate anything as to its further evolution. His general state is very satisfactory, considering the symptoms from which he has suffered. There are no bacilli in the expectoration, which for twenty-four hours has been composed of dark bloody sputa, mixed with viscid mucus.

During this same interval the focus in the left lung has steadily grown larger; and this very morning I called your attention to the modifications which have supervened. Last Thursday, forty-eight hours ago, there was in an area as large as the palm of the hand only a slight dulness and fine râles; to-day the lesion has increased below and above, even to the apex of the lung, and the condensation of the tissue is notably augmented; the dulness is complete, and in all that zone the râles of variable volume are mingled with blowing breathing and bronchophony.

The elevation of temperature last evening was probably the result of this aggravation of the local trouble; what is quite certain is that we find in that one spot, ten days after the occurrence of the accident which brought him before us, a focus of pneumonia created by the hemorrhage, and that this focus was already appreciable on the fourth day, and that since then we have followed day by day its development and the modifications which it has undergone. This first phase of the case which must be clearly understood in order that you may well comprehend what comes after, is then of exceptional precision. And now the principal question presents itself: What is to be the future of this patient? We cannot tell to-day, for his destiny depends on the uncertain and variable evolution of the pneumonic *foyer*, the result of the hemorrhage.

A simple resolution is possible; this favorable termination, which implies before all a stationary condition of the actual lesion, may take place after an interval of from six weeks to three months. The pneumonic focus may persist without any extension and without change in its character, and may result in the destruction of the central portions of the lung by the continuity of the inflammation, and by elimination of the fibrinous nodules resulting from the stagnation of the blood. The observations of Thomson have called our attention to this favorable course which I have never observed. It is not, by any means, as fortunate a termination as the preceding, but it has not the irremediable gravity of that kind which I am about to indicate to you.

The lesion caused by the hemorrhage is never repaired, or is repaired only very incompletely; a residuum persists, and the condition of the patient is precisely what I described a year ago when speaking of the imperfect resolution of pneumonia. In the neighborhood of this persistent lesion the vitality of the tissue is lessened; it is in a state of *sub-nutrition*, and becomes therefore a favorable culture soil for the fixation and multiplication of the bacillus tuberculosis. Let but the microbe obtain a lodgement in these conditions, it will certainly find a suitable habitat, and the pneumonic *foyer* will be transformed into a *foyer* of bacilli.

You see here, gentlemen, a good example of phthisis from hemorrhage, and I have told you how to grasp and interpret it. This patient, then, furnishes a new instance of that form of phthisis which has been denied by some, though wrongly; and it is the more convincing from the fact that the initial hemorrhage did not take its origin in the respiratory apparatus.

March 26, 1887.—The result has confirmed my previsions. The patient succumbed March 19 to pulmonary tuberculosis, three months and one week after the first attack of hemorrhage. During that time we noted the extensive ulceration going on at the primitive focus of the left lung, the pro-

gressive infiltration of the whole of this same lung, and till the end we could testify to the perfect integrity of the right lung.

The hemorrhage was not repeated, the expectoration gradually became purulent, and from the last of January we found bacilli in abundance, although they were vainly sought during the weeks which followed the admission of the patient into the hospital.

During December, January, and the greater part of February, the fever was very irregular, often intermittent, sometimes *nil*, but from the 25th of February it became high and continuous, and remained to the end between 100° and 102°.2 F.

The autopsy has been singularly confirmatory of our diagnosis; you may convince yourselves of this by examining the specimens which I here show you.

The left lung is riddled with little cavities in all its upper half, and the largest cavity, which exceeds the size of a large chestnut, corresponds exactly with the crepitant focus noticed on the entrance of the patient, the focus which remained for a long time the only lesion. In the spaces between these cavities, and in its whole lower half, the lung is the seat of a solid tuberculous infiltration.

The right lung is absolutely healthy; it contains not a single tubercle, and presents only a slight œdema.

The aortic valves are rigid, indurated and thickened by the old atheromatous deposits which extend throughout the whole thoracic aorta.

Remember, gentlemen, the lesson which this case teaches. It shows once more the reality of phthisis *ab hæmoptoë*, and fully justifies the doctrine which I have so long taught, of pulmonary hypotrophy (subnutrition) as a cause of tuberculosis.

—According to M. Luc and some others, there exists a variety of tracheitis, associated with nasal ozæna, but which, once established, evolves independently of the latter. The tracheitis is characterized by fœtid secretions in which the microscope reveals the presence of micro-organisms similar to those found in the crusts from the nose in cases of ozæna. The scabs on the walls of the trachea do not proceed from the nose, but are autochthonous. The clinical characters of tracheal ozæna consist in expectoration, especially in the morning, of greenish sputa, thick, viscid, and exhaling the peculiar odor of ozæna, and the persistence of the fœtor of breath after thorough cleansing of the nasal fossæ. Laryngoscopically, the crusts may be seen on the walls of the trachea.—*Lancet*, March 24, 1888.

COMMUNICATIONS.

OVARIOTOMY.

BY R. STANSBURY SUTTON, M.D.,
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It has been stated that to offer anything further upon this subject one should offer an apology for so doing. It is not so, else all who are interested need nothing more. The doing perfectly, every time, of any one operation is rarely the gift of a surgeon. We all operate much as we feel—well to-day, indifferently to-morrow. Surrounded to-day with favorable conditions, to-morrow with unfavorable conditions. To-day with skilled assistants; to-morrow with assistants who have no dexterity, or experience upon which to attempt any. To-day with a case sent early for operation; to-morrow with a case which has been the subject of the most brutal ignorance, trocar-marked from ensiform to pubes, her physical powers exhausted, and her sorrowful poverty somewhat to be accounted for by faith in drugs. So long as "absorbtion" is advocated as a remedy, so long as the brutality with the trocar continues, so long as women are urged to "wait until you must be operated on;" so long as all are not familiar with the operation itself, and all of its favorable and unfavorable surroundings, its elements of success and failure—so long we should continue to write and abjure apologies for so doing.

The obstetrician teaches first the mechanism of normal labor, subsequently the mechanism of difficult labor. It is the natural order. The young obstetrician is a success; the majority of labors are natural labors. The management of these gives him confidence, and when he advances to the difficult cases he is prepared to succeed. No one says to him let that woman alone until the angel of death is at her door and then aid her, but all say go! examine, give proper attention, aid her until delivered. When such action shall be the rule with women suffering with intra-abdominal cysts few will die, not more than die in childbed. Normal labor and early ovariotomy may be equally successful. Often men report, as I have done, their failures and success, some their success only. Few report their cases with the sole object of doing good to humanity; I do not claim that I do, if I did I would not be believed, perhaps properly so. But in giving the following typical case of a simple ovariotomy, I claim these objects, viz., *to teach those who desire to be taught the importance of early ovariotomy,*

its simplicity and its glorious triumphs, and to warn those who oppose the operation, and who maltreat these defenceless patients through their deplorable ignorance or woful stupidity.

Case 64.—April 30, 1888, Miss W., Pennsylvania, a stranger to me, aged 32, unmarried. On examination presents a multilocular ovarian cyst. Nothing excepting her size obstructs her daily duties. She is a feeble woman by nature. An examination of three minutes' duration without any instrument whatever established the diagnosis. Her period is due in two days, May 2.

May 2d to 6th menstruated.

May 8th, she entered my private hospital, 8 P.M., and had a full hot-bath.

May 9th, A.M., a dose of purgative (compound liquorice powder); light diet throughout the day.

May 10th, A.M., breakfast of soup, bread and coffee; no dinner. Etherized in bed and conveyed to the adjoining room for operation at 2 P.M.

Present, Drs. Williamson, Huselton, Davis, Lindley, Blackley and Dodds.

A four-inch incision, without the aid of grooved director, was completed in ten seconds. A large trocar rapidly reduced the cysts, which were delivered long before they were empty. The pedicle which was short and broad was tied, cut off and burnt, and two minutes and thirty seconds more time had gone.

The second ovary, which was diseased, was removed and its stump seared with the Paquelin; by this time not quite five minutes had gone. Two pitchers of warm water were poured into the cavity of the abdomen and sponged out, the sutures were introduced and tied and the wound closed, all in eighteen minutes; weight of cysts and contents fifteen pounds. On the following day pulse 96, temperature 99½° F. On the second day pulse 90, temperature 100° F. On the third day pulse 84, temperature 98½° F. On the fifth day stitches all removed, wound entirely healed, appetite and sleep normal, and the patient left to the nurses.

Such is the history of operations in simple cases, cases operated upon early. If this simple lesson will help the cause its aim will have been accomplished.

—The nineteenth annual session of the Medical Society of Virginia will be held in Norfolk, Tuesday, October 23, 1888. Upon the Society devolves the duty of appointing the thirty-two members of the Medical Examining Board.

HYPODERMIC USE OF NITROGLYCERINE IN HEART FAILURE.

BY M. HOWARD FUSSELL, M.D.,
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The results of the hypodermic use of two drops of a one per cent. solution of nitroglycerine, in the following cases of heart failure, were so satisfactory that it seems a matter of importance to the writer to place them on record.

Case 1.—Mrs. G., aged 63, subject to dyspnœa, palpitation and recurring œdema for several years, had a slight cerebral hemorrhage two years ago. Examination at that time showed disease of the mitral valve. Under treatment with digitalis and strophanthus, the case progressed favorably until January, 1888. Suddenly on the night of January 2, the patient, after having passed an unusually good day on the first, was seized with urgent dyspnœa, so that she was unable to lie down, and she became so sick that I was summoned about 3 o'clock in the morning. I found the patient unconscious, both her lungs full of bubbling râles, her pulse ninety and weak, but remarkably regular considering the patient's general condition. Her breathing was stertorous, and could be heard in the next room.

The patient having previously had cerebral hemorrhage, I at first thought this attack was a recurrence of the same trouble; but the fact that there was no recognizable paralysis caused me to doubt this diagnosis. The patient's condition was so bad, however, that I told the family she was the subject of heart failure, and in all human probability would die in a short time.

At this juncture I remembered a remark made to me by Dr. John H. Musser, of West Philadelphia, to the effect that he was certain he had in such cases saved life, at least temporarily, by hypodermic injections of amyl nitrite.

The patient had been taking nitro-glycerine before the attack, so I procured the bottle, gave a hypodermic injection of two drops, and retired from the room to await the death of the patient. In just twenty minutes from the time of the injection the attendants called out that our patient was dying. I went into the room, and, instead of finding her dead, saw that she had raised herself in the chair in which she was propped, and was evidently conscious. I spoke to her and received an intelligent answer. Her pulse had become still more regular than it had been before, and her breathing less

labored. I immediately repeated the injection of nitroglycerine, and in the course of an hour had the satisfaction of seeing my patient's condition so much improved that she was able to talk and could lie down without trouble, while the râles had disappeared from all parts of her chest, except the extreme bases of the lungs. In a few days the condition of the woman was quite as good as it was before the attack, and she was able to go about the house comfortably.

Case 2, was one of typhoid fever. The patient, a man 45 years old, had had a remarkably light attack of fever, his temperature never rising above 102°, and by the end of the second week it had reached the normal point.

On the sixteenth day of the disease the patient awoke in the morning saying he felt better than he had felt on any previous day. Notwithstanding the repeated warnings he had received not to make any undue exertion, he arose suddenly from his bed, reached under it for the commode, and immediately fell back in a faint. I was sent for, and on my coming found the patient in a deplorable condition. His pulse exceedingly irregular and weak, and so rapid that it could not be accurately counted; his face cyanosed; his hands and feet cold; his lungs full of râles. I immediately administered two drops of nitroglycerine hypodermically, and applied heat externally. In a few minutes I had the satisfaction of seeing my patient's condition begin to improve. His pulse became more regular, though still exceedingly rapid, and his breathing less labored. Stimulants were then administered, and he gradually improved for two days, when death took place from another attack of heart failure, following a persistent straining at stool.

Case 3.—A man, 59 years old, an habitual drinker, and the subject of mitral disease of the heart. After retiring on the evening of May 1, he was suddenly attacked with urgent dyspnœa. He arose, was propped in a chair, and tried vainly to obtain relief from his oppression. I saw him one hour after the beginning of his attack, and found his pulse irregular, rapid and weak. His breathing was rapid, his face cyanosed, and his lungs filled with bubbling râles. He was conscious, but unable to speak connectedly. Remembering my former success with nitroglycerine, I immediately injected two drops hypodermically. This was followed in a few minutes by marked relief. In half an hour I injected one drop. At the end of three-quarters of an hour the patient's pulse was regular; he could talk easily; his breathing was almost normal. I then ordered whiskey and digitalis to be given during the night, and in the morning found him exhausted, but almost in his normal condition.

In all of the above cases death seemed imminent. In the first case the woman would certainly have died very soon had she not received prompt relief. The treatment by the hypodermic use of nitroglycerine acted so promptly that the bystanders were very much impressed, and the physician was almost as much astonished as they were.

I have treated similar cases with stimulant hypodermics of whiskey and digitalis, but sometimes death was not averted, and when it was the relief was long delayed.

One who has seen cases of heart failure treated in the usual way can have no conception of the brilliant results which may be obtained by the hypodermic use of nitroglycerine. The treatment has the great advantage that it is harmless in any event; and I believe it should always be tried, though, of course, not to the exclusion of other well-known methods of relief.

SPINA BIFIDA.

BY SAMUEL WOLFE, M.D.,
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On the 18th of March, 1888, Mrs. B., aged 27, was delivered of her second child. The size, weight and general appearances of the child presented nothing peculiar. Over the spine, in the dorsal region, extending downwards, from a little above the middle of that region, for three inches, with a breadth of two inches in its widest part, was what appeared to the eye a raw patch, looking very much like a gaping incision through the skin, in a muscular region, which had become somewhat glazed by having been left undressed, after having been thoroughly cleansed. The ends of the patch tapered from a sharp point above, to a more obtuse termination below. Several longitudinal streaks of yellowish-white traversed it from above downwards. At several points there was the very slightest oozing of blood, and a high degree of injection of very small vessels. Along the lateral edges of the patch could be felt a row of bony, obtuse points.

The frontal bone was incomplete to the extent of two fingers'-breadths, from the anterior fontanelle to a level with the frontal protuberances. The parietal bones did not meet within one finger's-breadth. Over the lines of the other sutures there was less, but

still undue separation. There was very slight bulging of the skin in the region of the frontal deficiency, but the size of the head was normal, with no evidence of accumulation of fluid within the cranial, or rather meningeal cavity, unless the slight bulging, already noted, might be thus regarded. The limbs were well developed and well shaped. The spinal defect was dressed with ung. zinci oxidi. Within thirty-two hours there were evidences of healing from the edges of the raw surface, and the dressing was continued. About the fifth day a yellowish membrane had formed over the surface, and there was active secretion of pus. The surface was cauterized with argent nit., which apparently gave no pain whatever. This line of treatment was continued throughout, and the healing action under it made progress. On the third day the slight bulging in the frontal region had receded. During the fourth week the head began to enlarge, with all the characteristics of hydrocephalus, slight convulsive twitchings occurred, the strength began to fail, the flesh to waste, and just before having completed the fifth week of life, it died of exhaustion. The spinal affection had not materially changed. During the first three weeks the heart had been normal in its action, the bowels and kidneys acted regularly, the child nursed well, and in every respect the condition was thriving. During the last two weeks the lower limbs became contorted by tonic contractions, twisting the feet somewhat inward and upward. With the aid of Mr. J. N. Hunsberger, my student, I dissected the affected spinal region, finding the coverings, though with difficulty separable and distinguishable, to represent skin without epidermis, dura mater, and arachnoid. About a half fluid drachm of pus escaped when the inner covering was incised, and with it a white cord about one inch in length, and resembling a nerve of medium size in thickness, and of a consistence much softer than a normal nerve, flattening under pressure between finger and thumb. This was all that was found to indicate the presence of the cord, and it escaped with the pus in such a manner as to seem to have had no attachment. Of bone, there was absolutely nothing but the bodies of the vertebræ, which were held together by a tissue resembling in position and strength the posterior common ligament. There was some arching backward. The bones involved were the five lower dorsal and two upper lumbar vertebræ. Downwards, no trace of a spinal canal could be found; upwards, its calibre was very small and apparently tortuous, but as the dissection was not carried beyond, I can give no more details besides stating that the external appearances in the rest of the course of the spinal column were normal.

As to the family history, the mother had one year and two months before given birth to her first child, which was similarly deformed as to the spine, except that the affection was then located lower down, entirely in the lumbar region. There was also talipes in that case. No defect in skull, but general condition feeble. The child died on the third day after several convulsive spasms. No post-mortem was made. The mother is a healthy woman. The father also in good health. One of his brothers died in infancy; he does not know of what disease. A sister was temporarily insane at the age of 20, the cause apparently having been disappointment in love. She was afterward restored, married, had six children, and committed suicide by hanging at the age of 40.

The literature on the subject of spina bifida seems to be comparatively meagre, but from all I can find the above case has but seldom had its analogue amongst those reported. The position of the affection is almost constantly in the lumbar or sacral regions.

The skin is in all cases, so far as I can find any record, normal, or simply thickened, or thinned or discolored. There is always bulging, forming a tumor of the size of a walnut to that of an orange, and frequently much larger. There is always a collection of fluid (cerebro-spinal). In this case there was none. The advancing hydrocephalus did not affect the spinal disease, indicating that no direct communication between spinal and cranial cavities could have existed. The remarkably small quantity of nerve substance found, was also peculiar. The cord in many, probably most cases, presents little abnormality, except the effects of pressure or adhesions.

The theory of Lowne, that excess of cerebro-spinal fluid is the active factor in the causation of the disease, will not apply here, and I may venture the suggestion that even in the ordinary, typical cases, the excess of fluid is due to the want of resistance, from the imperfect formation of the osseous canal, rather than the latter an effect of the former.

The one practical lesson, which I draw from these two cases, is, that when the mother again becomes pregnant, I will administer during the entire period of gestation, such drugs as are calculated to stimulate the bone-forming forces, and to administer in the shape of food, cod-liver oil and lime salts, a pabulum for such forces to act on. It might even

be justifiable to put both parents on a suitable regimen, previous to the occurence of conception.

CREASOTE IN PHTHISIS.

BY FREDERICK L. LADUE, M.D.,
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While fully realizing that the termination of any one case after treatment by a method not thoroughly established is an insufficient criterion of the merits or demerits of any new departure in therapeutics, yet I am convinced that in such a formidable disease as phthisis pulmonalis the profession is not averse to having their attention drawn to a favorable report of a case treated with drugs but little used, no matter how irrational or empiric their use may be, provided only that they promise help in the stern battle with that insidious foe, tuberculosis. Probably in no other common disease has the profession evidenced so much avidity to grasp at empirical, undemonstrated and unscientific methods, as in the disease in question. This results undoubtedly from our utter helplessness when face to face with the disease in its later stages. The recent craze for rectal injection of gases is testimony for this statement.

Since the announcement of the bacillus theory of phthisis the line of investigation has materially changed, and where once the only fight was on the defensive—repairing the damage done by the silent enemy—now the base of attack is changed, and the grand charge is tending toward annihilation of the enemy itself. Medical men exhibit a strange inconsistency between their belief and their actions. While thoroughly believing and accepting the theory of Koch and learnedly talking and writing of germs and microbes, yet they make no pretense to the destroying of the germs themselves. Valuable time and valuable lives are wasted in temporizing with the old modes of treatment which, while good so far as they go, fall short of the mark set up by Koch. If we are to accept the germ theory—and microscopy says we must—then why not try antiseptics and germicides? Experience has fully demonstrated the fallacy of our old methods of treatment. One-seventh of the entire population falls a victim of this disease, showing conclusively how futile are our powers in the face of this scourge.

Doubtless it was by this or similar reasoning that Sommerbrodt, whose name may yet be placed with Koch's, resorted to the use of creasote. This well-known germicide has been demonstrated by Sternberg to be fatal to micrococci in the strength of 1 to 200. While Sommerbrodt admits that it may not be from its antiseptic or germicidal powers that it benefits, but that it may be simply from its favorable action upon digestion, still he advises that it be pushed to its utmost limit of toleration, as here is where so many fail in its use. Pushing it to this extent would be unnecessary if its beneficial action was expended only upon the process of digestion and assimilation; for experience with the drug plainly shows that it is the small doses and not the large which assist digestion, and that the large ones which he advises occasionally irritate the stomach. He says that disappointment arises only through timidity. "The more creasote that can be borne the better the effect," is his dictum. He claims to have treated 500 cases during the past nine years, and of those treated by Bouchard's formula, 27 per cent. recovered. Others were treated by the following formula, which gave the best results:

℞ Creosoti..... ..... ℥ xv
Tr. gentian ..... ℥ xlv
Spir. vini rect..... f℥viss
Vini Xerici q. s. ad..... f℥iij

Of this one ounce was taken three times a day. The creasote was gradually increased to thirty grains. He obtained the best results by following treatment for from three months to a year. The most benefit was seen in the young and in the first stages of the disease, when the symptoms were not well defined. Good results were always secured when scrofulous glands were present. It generally relieved irritation and cough, and secretion and expectoration diminished, so that narcotics could be dispensed with.

Dr. J. Solis-Cohen has used creasote for many years; not as a specific but to prevent retardation of the decomposition of undigested nutriment. He has used it in chronic diarrhœa for twenty-five years. He has found that the beechwood creasote is the best to use, and rarely exceeds one-half minim at a dose. He claims to have used this with such benefit for twelve years that he rarely uses oil or hypophosphites.

Mrs. G. M., thirty-six years old, was seen first for her present trouble, December 3, 1887. I had treated her four years before for incipient phthisis, but had heard nothing from her during the intervening time. On November 1, one month before I saw her, she gave birth to a child, and since her confinement had rapidly failed until she sank into a condition of tuberculosis in the third stage.

Her condition was as follows: Temperature 103°; profuse sweating at times; violent cough and abundant expectoration of yellow mucopus; violent delirium occasionally, but never quite herself. Physical examination disclosed the fact that there were large cavities in the apex of the left lung and flatness upon percussion in other portions of the same lung. Auscultation showed the vesicular murmur absent in the apex of left lung, and the presence of blowing, gurgling respiration with bronchial breathing in other parts. The pulse was 120: there was no appetite. I immediately began the use of creasote, giving one minim three times a day, and gradually increasing drop by drop until the amount of thirteen grains was taken (January 14, 1888) at a dose. At that date the delirium had entirely disappeared, sweats greatly diminished, cough slight, and little if any expectoration. She has gained strength, flesh and appetite. She sits up four hours a day, whereas ten weeks ago she could not get out of bed. At the date of present writing, May 1, she is around the house, gaining flesh and feeling well. The lungs have improved, and the gurgling sound of air bubbling through fluid is gone. She has taken creasote constantly for four months with two interruptions of one week each. She has taken as high as eighteen grains at a dose without visible inconvenience. During this time she has had no other medication, and her diet has been principally composed of crackers and potatoes. I should state, however, that she had small quantities of whiskey part of the time.

—M. E. Beaupère, basing his opinion upon twenty-six observations made for the most part in the service of M. Levrat, at the Charity, concludes as follows:

Chloroform is indicated for the performance of tracheotomy in children attacked with croup. It acts in small doses and rapidly, without provoking in most cases the period of excitation. It does not increase asphyxia, it stops laryngeal spasm, and renders the operation more easy by making the child immovable and by the absence of congestion of the veins of the neck. Far from predisposing to syncope, it can, on the contrary, prevent it by diminishing inhibitory susceptibility of the region. Its use does not influence the subsequent evolution of the diphtheria. It enables one to dispense with several assistants. The only contra-indications to its employment are advanced asphyxia or lesions of the lungs. —*Bulletin Médical*, April 15, 1888.

Society Reports.

AMERICAN MEDICAL ASSOCIATION. —SECTION WORK.

Third Day, May 10, 1888.

SECTION ON DISEASES OF CHILDREN.

Dr. D. A. K. Steele, of Chicago, read a paper on

The Surgical Treatment of Empyema in Children.

In the consideration of its surgical treatment we must remember the surgical maxim that "wherever we have a pus collection it must be evacuated in the speediest, safest, and most thorough manner." In the majority of cases it is my belief that a purulent pleuritis is due to auto-infection of a more or less limited area of the inflamed or damaged pleura through the medium of the general circulation; the pus microbe thereby gaining entrance and commencing its destructive action upon tissues which otherwise would only be the seat of a simple pleuritis. Other methods of infection are the use of unclean aspirating needles; rupture of the bronchus; extension of a septic pneumonia; secondary infection from the primary foci in some other point of the body; tubercular infection, etc. Empyema, if left to itself, may terminate in recovery in one of three ways according to L. Emmet Holt—(1) by spontaneous absorption of the purulent effusion; (2) by evacuation through the bronchus; (3) by opening externally through the intercostal muscles; but when left to nature the mortality is appalling. Rilliet and Barthez mention 33 cases, with 4 recoveries, 21 deaths, and 8 not accounted for.

In regard to the surgical treatment, no absolute rule can be laid down for the management of all cases. We have our choice of operations from the following: For example, we may resort *first* to aspiration; *second*, aspiration and washing out of the cavity with an antiseptic solution; *third*, thoracentesis with trocar and canula; *fourth*, thoracentesis with sub-aqueous drainage; *fifth*, simple incision; *sixth*, simple incision and drainage; *seventh*, simple incision with through and through drainage, with or without antiseptic precautions; *eighth*, subperiosteal resection of rib and drainage; *ninth*, thoracoplasty (Estlander's operation); *tenth*, perflation. Each of these various methods will give good results. As a matter of fact, as practical surgeons, we may confine ourselves to the relative merits of but two of these methods—aspiration and

free incision with drainage. There is no question but that in a certain minority of cases in children, simple aspiration once or twice repeated, will effect a permanent and satisfactory cure. Aspiration has the advantage of being simple, safe, and occasionally curative; but if we find the fluid really accumulates, or septic symptoms are developed, then a free incision with drainage is imperatively demanded. Aspiration has the disadvantage of leaving a small amount of pus for reabsorption, or which may become an inspissated residuum that will result in a secondary abscess in after life. Surgically considered, it is not as perfect an operation, or as scientific a procedure, as evacuation by free incision and the introduction of a large-size drainage-tube. Of 121 cases treated by aspiration alone, 23, or 19 per cent., were cured, six died, and the rest came to some other treatment, usually incision. In regard to Ewart's method of perflation, reported last year, I have no personal experience.

In conclusion, therefore, I may summarize my observations as follows:

(1) The surgical treatment of empyema in children is eminently satisfactory and yields better results than in adults. (2) Multiple hypodermic aspirations are necessary to perfect a diagnosis, and should always be resorted to in cases of thoracic disease about which there is any element of doubt, especially in cases of pneumonia that exceed the usual period and become "old-monia." (3) Aspiration cures a small minority of cases and should always precede a more radical operation, especially in localized empyemas. (4) Free incision and drainage, with local anæsthesia, under strict antiseptic precautions, gives the most satisfactory results in the majority of cases. (5) Subperiosteal resection of the rib is sometimes necessary to afford perfect drainage. (6) Thoracoplasty is rarely required in children. (7) Other methods of treatment should be resorted to for special cases or circumstances. (8) Early incision, perfect drainage, and complete antisepsis should be the rule.

SECTION ON OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

The session opened with a paper by DR. E. FLETCHER INGALS, of Chicago, on

Naso-Pharyngeal Fibromata.

He reported four cases to the section in 1884, two of which had been cured, and two of which had disappeared. He advocated the extirpation of these growths, when possible, through the natural passages by means of the galvano-cautery ecraseur or other methods employed by laryngologists in the destruction of nasal polypi, in preference to the formidable operation, including removal of the superior maxilla, which has frequently been practiced by surgeons and which is still believed by some to be the best means of eradicating such growths.

Dr. Lincoln, of New York, had shown that the operation usually adopted by surgeons was extremely hazardous, over twenty-five per cent. dying from the operation, while it was not very successful in preventing recurrence, as in only about fourteen per cent. was it certain that the tumor had not returned within a year, while by the method which he then recommended it was shown that the danger to life was very much less and that the ultimate results were much better, as in over fifty per cent. recurrence had not taken place within twelve months. Recently, one of the cases then reported, which had failed to return after the first sitting for completion of the operation, and which he had lost sight of at the time his paper was written, had returned after the lapse of five years with a renewed growth in the same locality. This was removed by means of the galvano-cautery ecraseur. The operation was done after the parts had been anæsthetized by cocaine, and was completely successful in removing all the tumor, which consisted of three lobules which had been attached by a base about half an inch in diameter at the vault of the pharynx and posterior nares of the left side. The tumor removed five years ago had the appearance of being composed entirely of fibrous tissue. Of the tumor recently removed, the smaller lobules, which measured about five-eighths of an inch in diameter, proved upon microscopical examination to be made up of fibrous tissue; the next larger lobule, which measured about three-eighths by one-half inch, appeared to be fibro-cellular in character, about one-half fibrous; and the largest, which measured about one by two inches in diameter seemed also fibro-cellular, about three-quarters fibrous.

He had also to present to the section the history of a case and the specimen (a large fibrous growth) recently removed from the nasal pharynx with the galvano-cautery ecraseur.

The patient, W. K., aged sixteen, for two years had been troubled with difficulty in breathing through the nose, and frequent epistaxis. For about two months before consultation he had suffered from frequent alarming hemorrhages, during one of which his attending physician had been called in for the first

time. The doctor checked the hemorrhage, but the patient was much exsanguinated and in no condition for an immediate operation; therefore he was placed upon tonics and nutritious food and given time to recuperate. Dr. Ingals found the patient well nourished and with no appearance of anæmia. His voice was of that peculiar character known as nasal; the sense of smell was nearly lost, and he complained of pain in the side and back of the head. The left cheek over the lower maxilla was quite prominent and apparently swollen, but there was no induration excepting just opposite the posterior molar of the upper jaw, where a conical tumor could be felt deep in the soft tissue. This tumor appeared to be about five-eighths of an inch in diameter at farthest point where it could be felt, which was about the same distance back of its apex, and it was evidently attached far back in the tissues out of reach. Upon examining the nares anteriorly, the posterior third of the left cavity was found filled with a firm growth of a light pink color, which bled very easily on being touched with a probe. Examining the mouth, the soft palate was seen to be crowded downward, and rhinoscopic examination discovered the naso-pharyngeal cavity to be filled with a firm tumor of a light red color and smooth surface. The slow progress of this case, the frequent attacks of epistaxis, and the appearance of the growth itself, convinced Dr. Ingals that it was a fibroma. He recommended removal by the galvano-cautery ecraseur and left the patient to decide whether it should be done under the influence of cocaine or ether. On the afternoon of the same day he operated. A ten per centum solution of cocaine was first applied to the nasal pharynx and left naris, by means of an atomizer and syringe, about once in two minutes for fifteen minutes until the parts were insensible. He then passed through the left naris two catheters which were brought out of the mouth, and though these were passed the two ends of a number eight platinum wire, and these were drawn out of the nostril with the catheters; the loop was carried up behind the tumor by the fingers; the ends of the wire were then passed through a tubular electrode and made fast to a rachet on the handle, and the battery was connected. He now tightened the loop by turning the rachet and then heated the wire for two or three seconds by closing the circuit; then allowed the patient to rest a few seconds, and then repeated the procedure, thus alternately heating the wire as long as the patient could easily bear it and then allowing it to cool, and, tightening the rachet, he soon burnt off the growth at its base, which was more than an inch in diameter. The tumor was removed through the mouth and proved to be a hard fibrous mass, measuring one and three-eighths by two inches in diameter, and one inch in thickness. During the past three years he had operated on two other cases of naso-pharyngeal tumors which appeared at first to be simple fibromata. The first case, A. B., aged thirteen, was brought to him from Dakota, and during the course of a year and a half underwent three distinct operations, in each of which the tumor was removed as thoroughly as possible, but a small portion of it, which was doubtless left in the tissues about the pterygoid process, could not be extirpated. The late Professor Moses Gunn at one time removed a tumor, which was about an inch in diameter from this patient's cheek. During the last six months of the treatment the tumor grew so slowly that he hoped for its complete destruction.

The second of these cases, E. J., aged about 13, was brought to him from Nebraska, about two and a half years ago, with a fibrous tumor which filled the left naris and naso-pharyngeal cavity. In this case the tumor was removed partly by the galvano-cautery and the steel wire ecraseur, and partly by cutting forceps. There was profuse bleeding whenever the cutting forceps was used, but it was readily checked by tamponing the nasal and naso-pharyngeal cavities with a strip of gauze, saturated with a mixture of tannic and gallic acids, which had been rubbed up with just enough water to make it the consistence of syrup. The record of the case has been lost, but three or four operations were done at intervals of from three to five months, each time the growth being removed as completely as possible, part of it having penetrated the surrounding bony structure. The last operation was done about a year ago, and he has not since heard directly from the patient, but from another patient who knew of the case, he has recently learned that the boy is living, and, that so far as the friends can tell, the growth has not returned.

Dr. Ingals believes that all of such cases which afford any hope of cure should be operated upon through the natural passages. When the growth has been removed, if any parts remain which are inaccessible to the ecraseur, cautery, knife, or cutting forceps, they should be treated by electrolysis, and thus even if we fail to eradicate the growth at once we may hope to prolong the case to the period of adolescence, when nature seems to set a limit, at least, in many cases to the further

development of these growths, and then a cure will be effected.

SECTION ON MEDICAL JURISPRUDENCE.

DR. DANIEL R. BROWER, of Chicago, spoke of

The Medico-Legal Relations of Hysteria.

The close relation hysteria bears to insanity makes the question of the legal responsibility of its victims often exceedingly doubtful. Under the overwhelming impulse of a perverted nutrition these patients may commit murder, incest, or other crimes. Under the domination of disordered imagination, they may make accusations of pretended assaults upon their persons, and a variety of other crimes; or they may justly claim recompense for the development of this abnormal condition of the nervous system as a consequence of the shock of railroad and other accidents.

Hysteria is a *psycosis*, the primary derangement being in the higher cerebral centers. The lower centers of the brain, the spinal cord, the sympathetic nervous system, are only secondarily affected. It consists essentially of a depressed condition of the intellectual and volitional areas of mental action, and an excitation of the emotional and perceptional areas. This condition of mind produces a defective will power; an imperfect self-control; an insatiable craving for sympathy; an exceedingly irritable and irascible disposition, and with this is very often associated sometimes as an inheritance, sometimes as an outgrowth of this unbridled emotional condition, a defective moral tone, and sometimes an unnatural and ungovernable activity of the sexual system.

The morbid excitement of the sexual organs of these hysterical patients sometimes places them in medico-legal relations. There are many examples in the annals of medical jurisprudence of women who prostitute themselves without reference to the social condition of the man. Charcot furnishes the case of a young Austrian noble-woman of great beauty, who offered herself to every man, even to the lowest street character. She gave birth to a child which she subsequently decapitated without appreciating at all the nature of her criminal act. To this class of cases belong, at least, some of the cases of pretended assaults in physicians and dentists' offices.

A patient who was under my treatment for various manifestations of hysteria was sent by me to a certain distinguished specialist in gynecology in Chicago for local treatment. She made several visits to his office and a few days after the last visit sent for me. She told me that the specialist had committed an assault upon her while giving her treatment, and that, as a consequence, she had missed her menstrual period and was now pregnant. She indulged in the most violent language possible, and her husband and mother were inclined to believe her story; and had it not been for the reputation of my distinguished friend, I might have also given some heed to her story. After a few days, however, her menstrual period recurred and thus destroyed the principal foundation upon which she built her theory of assault. Had her menstrual period not returned, or had the specialist been a man of less reputation, a scandal, at least, might have been perpetrated. In my opinion gynecologists, who make examinations and treat such patients in private, are constantly in danger of such accusations.

To this same order belongs certainly some of the cases of beastly and brutal crimes committed by men, such as violent assaults upon children, and inversion of the sexual function. The case of Lord Clinton, in London, is an illustration; and in the annals of our own (Chicago) courts and those of other cities, arrests are not infrequently made for violence of public decency. Men dressed, for example, in women's clothes soliciting other men for purposes too vile to mention, are, at least, associated very often with this hysterical condition of the nervous system.

Another important legal relation of hysteria is that which grows out of railroad and other injuries. It is a well-recognized fact that nervous shock, from whatever cause it may originate, will develop the hysterical condition in those who have any tendency thereto, and strong and healthy men and women have been time and again reduced by such causes to a state in which all control of the emotions and of the will power is well nigh gone; "who cannot sleep (see Page on Injuries of the Spine and Spinal Cord, p. 172), because he has before his mind the ever-present sense of the accident; who stirs at the least noise; who lies in bed almost afraid to move; whose heart palpitates whenever he is spoken to, and who cannot hear or say a word about his present condition and future prospects without bursting into tears." We know very well there are some who regard this set of symptoms as a mere assumption, but we have had sufficient experience with similiar cases, without any legal relations whatever, in which this hysterical condition has been developed, and in which the life

has been made miserable; the usefulness of the patient diminished, if not entirely overcome—sufficient experience to know that there are some cases in which shock to the nervous system does develop, without question, this condition, and make such patients entitled to as much compensation as if they had broken an arm or fractured a skull. Indeed, the award of damages in such cases should be vastly more liberal, because the usefulness of their lives in the future has been vastly more curtailed than could possibly result from any such injury as we have described. And these symptoms of nervous disturbance in such cases are doubtless exaggerated by the long and tedious process of litigation by which the settlement is reached; and it is not surprising that when the relief comes from the adjustment of the suit and the awarding of the damages, that the satisfaction which arises from this fact, and the ease and comfort of mind which follows, bring about a disappearance of all the symptoms complained of.

SECTION ON DERMATOLOGY AND SYPHILOGRAPHY.

DR. H. J. REYNOLDS, of Chicago, reported the following

Case of Nævus.

J. E. H., 10 years old, native of Minnesota; American parents; father healthy, mother died of inflammation a few days after the birth of the child, who is the subject of this report. The child has had ever since birth a thick, fleshy, prominent purplish colored growth, extending from a little below the left knee up to above the crest of the ileum. The growth encircles the lower part of the entire leg, except a narrow strip on the inside. Viewed anteriorly it recedes, extending from below up slightly to the left, so that the inner margin of the upper part reaches above the anterior superior spinous process of the ileum; posteriorly above the buttocks it extends slightly beyond the median line to the right. When first seen, some three months ago, the growth was traversed over almost its entire surface by numerous deep furrows. He has always been troubled with a very profuse serous sort of discharge of a very offensive odor, so much so in fact, that he was deemed unfit to be in school with other children. Owing to the maceration and irritation caused by the discharge or moisture, the growth was in places attended with more or less irritability or soreness. Portions of the surface of the growth are covered by a hard, scaly sort of substance, resembling somewhat an aggravated ichthyosis; long delicate hairs were distributed more or less scantily throughout the entire affected region. Another interesting feature in this case is the fact that the affected leg is about two inches longer than the other one; otherwise the child has always been healthy.

He had been treated more or less by various physicians, but never received much benefit. I ordered the part carefully washed once a day with soap and warm water, and impalpable boracic acid applied three times a day. I have not seen the patient since; but the following extract received in a letter from his father a short time ago explains itself. He says: "In regard to my son, whom I brought before you on February 8, I can say that your treatment is the best remedy I have heen able to find yet. The offensive odor and discharge have almost stopped, and the thickening is growing thinner in places, and the limb is in better condition than it had been since he was born, or since I have been paying close attention to it."

Favus of the Forearm.

The following case is deemed interesting chiefly on account of its very unusual location:

Occurring upon the scalp, tinea favosa is a somewhat rare disease, and extending from the scalp to the non-hairy skin of the same individual is a still more rare occurrence, but to develop exclusively on the non-hairy skin is a circumstance not very often met with.

M. L., 7 years old, of Jewish parents, and otherwise healthy, presented herself for treatment April 7. Examination revealed a roundish patch of eruption about three-quarters of an inch in diameter on the flexor surface of the forearm about the region of the junction of the middle and lower thirds. Exactly in the center of the patch was a bright yellow, sulphur-colored, umbilicated crust one quarter of an inch in diameter, with a crack across its centre, showing its brittle character. By careful examination three or four beautifully defined smaller cups about the size of the head of a pin could be observed here and there over the patch, otherwise the remainder of the patch was to all appearances identically that of ordinary ringworm, with a reddish, slightly elevated abrupt margin, with a center tending to become paler, and covered slightly with fine scales. Examination with the microscope showed the crust to be composed entirely of favus spores; scales from the reddish margin contained principally mycelia with a few smaller spores, which, as far as I was capable of judging, were identical with those found in ringworm.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, May 3, 1888.

THOMAS M. DRYSDALE, M.D., in the chair.

DR. JOSEPH PRICE reported a case of

Typhoid Fever Following Ovariotomy.

Mrs. E. N., 37 years old, one child sixteen years ago; one miscarriage fourteen years ago. She complained since her miscarriage of great pelvic pain, etc. She was operated on at the Gynecean Hospital, February 11, 1888, for the removal of the right uterine appendages. The tube and ovary were firmly adherent to and under the fundus uteri. The ovary was enlarged and cystic. The removal was not difficult and the operation was completed in twenty minutes. Two years previously the left appendages were removed for a small inflamed and adherent ovarian cyst, the right side at that time appearing perfectly healthy. The recovery from this first operation was speedy, and for a year the patient seemed in perfect health. Then the symptoms of pelvic trouble returned and were referred to the right side. From the second operation, the patient reacted perfectly, and for nine days her temperature constantly remained above normal, varying from 98°.6 to 100°.1; the intermissions never amounting to one degree. During this time she also complained of a good deal of headache, weakness and mental depression. The evening of the ninth day her temperature ran up to 102°, and she had a slight rigor. From that time she presented a typical case of typhoid fever, including the characteristic temperature record, stools and eruption. The nervous symptoms were not especially marked. The temperature varied from 99°.8 to 104°.8 for four weeks. The patient made a good recovery, and is now in better health than before the operation.

Three points of interest in this case are: 1. That the patient was probably in the early stage of typhoid fever when she entered the hospital, there having been no case of typhoid in or near the hospital at the time. 2. The operation did not seem to influence the course of the fever, nor the fever the result of the operation. 3. The temperature combined with the early constipation and meteorism were naturally attributed to the operation and treated accordingly, until the diagnosis of typhoid fever was made, after which the usual expectant treatment for that disease was pursued.

DR. J. M. BALDY reported a case of

Hysterectomy, followed in four Months by Ovariotomy and again in six Weeks by Abdominal Section for Purulent Peritonitis.

Mrs. P., 40 years old, colored, came under my care on the seventh day of last November. She had for years been suffering more or less discomfort from an enlarged abdomen. However, until within the year past she had managed to get along very comfortably. About twelve months previous to the date of my first visit, while lifting a wash-tub something "slipped back into her belly," and at the same time the abdomen became somewhat smaller. This was in all probability caused by the large fibroid uterus, which had been resting on the pubes, being suddenly dislodged. She now began to suffer acutely from pressure symptoms. The bladder and rectum prolapsed, and were for the most of the time between her thighs. She had difficult and scanty micturition, constipation was constant. Finally, the urine became loaded with pus; her abdomen became enormously distended with ascites, and she suffered constant pain, besides losing large quantities of blood. At the time of my taking charge of the case she could be out of bed only about two hours a day, on account of the great swelling of her legs and feet. She had been attended by a number of different physicians, and had been repeatedly tapped, the last tapping having been done on the Saturday previous to my seeing her. After each of these operations she was confined to bed for several days with an acute pain in the lower part of the abdomen, and she was now suffering from one of these attacks of peritonitis—so much so that I could only with difficulty manipulate her abdomen.

The diagnosis was extremely simple, and she readily consented to an operation, with the full understanding that the chances of recovery were strongly against her. On the following Saturday, just one week from her last tapping, I opened her abdomen, and removed a fibroid uterus, weighing five or six pounds. At the time of the operation her belly was so distended with fluid that her breathing was badly interferred with: over three gallons of fluid were removed. The operation was performed by the extra-peritoneal method. I was able to place the *serre-nœud* below, and including, as I then thought, both ovaries, and thus obviated the separate removal of these organs; this, however, finally proved to be a fatal mistake. In cutting away the tumor it be-

came necessary to leave part of the right ovary on the stump, in order that the button might be large enough to prevent the *serre-nœud* from slipping. The peritoneum was the thickest I have ever seen, being fully half as thick as one's finger. The patient recovered promptly from the anæsthetic, and much to my surprise went on slowly and without complication to recovery. For the first ten days I removed daily from the drainage-tube over a quart of straw-colored, syrupy fluid, and I was at one time afraid that the peritoneum would never stop secreting it. On the eighth day the stitches, fourteen in number, were removed and union found to be perfect, with no stitch-hole abscesses. On the eleventh day the discharge from the drainage-tube stopped abruptly, after a dose of salines, and never again reappeared. The tube was removed four days later. On the tenth day, while tightening up the *serre-nœud*, it broke and I was never able to tighten it afterwards. In consequence of this accident the stump was slow in coming away, and finally, after waiting a full month, and slight septic symptoms having set in, I removed the pus and cut away the decaying tissue as far as I could, and allowed the rest to retract. Within a few more days I had succeeded in getting away in small pieces the little tissue which was left.

At the end of six weeks she was out of bed and again at her work, in better health than she had enjoyed for years. The urine gradually cleared up and became normal. She had no more trouble from her prolapsed bladder and rectum; they disappeared entirely within the vagina. The depression left by the retracted stump never entirely closed, but continued to discharge from a pin-hole point, about one drop of pus daily.

Within a few weeks a ventral hernia began to show itself at the site of the drainage-tube, and gradually extended downward towards the pedicle, until finally it became as large as a big orange. This became more and more troublesome, and she complained of a dull pain at the lower part of the hernia. She being a poor woman, forced to work, and not capable of or having time to take the best care of herself, I advised her to go to bed again and have the hernia closed.

This she did on the 17th of last month. I opened the peritoneal cavity at the upper border of the hernia and slit up the tissues to the full extent of the rupture. Quite a large amount, probably a pint, of clear, straw-colored fluid gushed out. Passing my finger into the pelvis to investigate the cause of this, I was surprised to find it filled up with a cyst, having for its attachment the old uterine pedicle, which was itself thin and elongated. The pedicle of this new growth was very short and broad. After securing it with a double ligature, it was removed, and found to be a multilocular ovarian cyst about the size of a base ball. The omentum had been slightly wounded on entering the cavity, and as it bled freely a ligature was thrown around it, and a small piece removed. Everything being now cleaned up, a large flat sponge was placed over the intestines, and I proceeded to close the incision. The muscles and fascias were dissected out on both sides and united with a continuous silk suture. The wound was then closed by seven sutures introduced through the entire thickness of the abdominal wall. There was no drainage used, which was extremely unfortunate, for a drainage-tube would have saved her life. Recovery from the anæsthetic was prompt, and she seemed unusually comfortable. On the second day she complained of pain in the left chest, which for the next few days increased. This pain was apparently pleuritis, although I could discover no physical signs. She had a slight hacking cough, and about the fourth day began to spit up quite a good deal of dark colored sputa. For the first week she was extremely restless, and said she did not feel nearly as good as after the first operation. The temperature remained slightly over 100°, and the pulse about 90. On the seventh day the stitches were removed, and a drop of pus followed each of two of them; there was never any discharge from these points afterwards. This pus apparently explained her discomfort, lack of appetite, etc., but instead of improving, she grew slightly worse. From this time until the second of this month her temperature and pulse varied—on two occasions I found the temperature as high as 102°.5, but was never able afterwards to find it more than 101°.5. She complained, however, that her hottest time was towards morning, and that she sweated freely and could not sleep. Her tongue was of a nasty red color, irregularly covered with a thick white coat and pitted. By repeated examinations I could detect nothing wrong, and yet her whole condition seemed to me to be extremely suggestive of sepsis. On the seventh of the month I asked a friend to see the case with me, and advise as to the advisability of reopening her abdomen. Our decision was to wait and observe, and the old adage, "that he who

hesitates is lost," was once more exemplified. From now on I was led hither and thither by the symptoms; sometimes she was apparently much better, pulse and temperature would improve, and at one time the tongue was almost cleared, and the mouth was not so sore. About this time I noticed a distension of the abdomen, more on the left side, with a region of dulness irregularly extending from the spleen to the pubes. By change of position there was no change in the line of dulness. This led me to think that there had been an acute attack of peritonitis, with effusion, and that soon all would be well.

On the 8th of April about an ounce of pus was discharged from the site of the old pedicle, and after putting in a small rubber drainage-tube, the cavity was kept well washed out. With this cue to the probable trouble, I again lost my opportunity of operating. The symptoms all improved so much and she progressed so well for a few days that I was further seduced into the miserable policy of waiting. The pulse became 100 and the temperature 100°.5, and then things came to a standstill. I now went out of town for three days, determined to operate on my return if there was no more improvement. On my return, I found that there had been another discharge of pus, and that she was very much better. This led me into still more waiting, but without any further improvement.

Looking back over the past month, I could see a decided and alarming loss, which had been pretty constant in spite of the repeated changes for the better which had taken place in that time. On the 18th of April, about one month from the second operation, I undertook a third and last. The incision was made through the old wound. Here the tissues were an inch thick; hard and gristly. The hernia had been most effectually closed and the ends of the old suture could be plainly seen. Hemorrhage could only be controlled by sponge-pressure. On opening the peritoneal cavity, the trouble was at once apparent. A quart of foul fœtid pus was removed. The abscess cavity extended from the pelvis to the spleen. The intestines were crowded back and to the right and universally adherent, shutting off the abscess from the rest of the peritoneal cavity. Everything was covered with an apparent pyogenic membrane. The cavities were all thoroughly washed out and four rubber drainage-tubes put in, one extending to the spleen and one into the pelvis, the other two off sideways into deep pockets. The incision was then closed with four sutures. Recovery from the anæsthetic was prompt. Pulse was 130; temperature, 101°. But the pulse was 100 and the temperature 100° the next morning, and she was very comfortable. The tubes were washed out twice daily. For the first time for weeks she was able to retain much food. She was given every twenty-four hours twenty grains of quinine, f℥viij of whiskey, one pint of beef-tea and a pint and a half of milk, together with a couple of eggs. She retained most of this, taking part of it by the bowel and part by the mouth. In spite of all that could be done, the pulse and temperature slowly, but surely increased, until the thermometer registered 103° and the pulse counted 120. She sank slowly, and died the evening of the 24th, six days after the last operation.

No post-mortem was allowed, but on pretense of removing the drainage-tubes, the incision was enlarged and my hand introduced into the peritoneal cavity. Breaking up the adhesions surrounding the abscess cavity, I found there had been a slight general adhesion of all the intestines over the whole abdomen to everything. The liver and spleen substance were surprisingly firm. No more abscess cavities were found. The general appearance of the abscess walls was that of returning health: the pyogenic membrane had disappeared, and the peritoneum was beginning to look somewhat like itself. There was fairly good union in the incision, but it broke down readily under pressure.

In looking back over the management of this case, I recognize a number of fatal mistakes, and have learned some valuable lessons which I hope I may never have to relearn at the same cost. In the first place, all ovarian tissue should have been removed at the hysterectomy. However much I regret not having done this, there was at the time sufficient reason to justify leaving what little was left, especially as I thought the *serre nœud* was below it, and that it would all come away with the stump. I do not yet exactly see why it did not do so. The great error was in not being more careful in disinfecting the site of the old pedicle, which had never ceased to weep, before opening the peritoneal cavity a second time. The peritoneum undoubtedly became infected from this point during the necessary manipulations incident to the operation, and went on to a purulent peritonitis. Nature made a grand effort, even then, to save the patient, by throwing out adhesions as the inflammatory process advanced, and finally succeeded in saving half the cavity from involvement. After doing this, she gave all the indication

in her power as to what was the trouble, and by thrice discharging pus, apparently called loudly for assistance, which she failed to receive until it was too late.

DR. H. A. KELLY said that he was sorry to say that he had required many lessons to teach him what Dr. Baldy hoped to have learned from this one experience. If anything went wrong which he could not attribute directly to the formation of stitch hole abscesses, and these did not cause any profound disturbance beyond a sudden rise of temperature, he did not hesitate to enter the peritoneum, with great care. On several occasions he had opened the peritoneal cavity five, six or seven days after operation, and in a case of day before yesterday, two weeks after the original operation. He usually does this without an anæsthetic or at most a few whiffs of chloroform, or cocaine locally. Cases requiring this have generally had a drainage-tube used and can be readily reopened in the track of the tube. The case of day before yesterday was a pyosalpinx, which had done well for ten days, and then the temperature and pulse began to rise. After giving a whiff of chloroform he introduced his little finger into the opening and penetrated to the floor of the pelvis when a collection of blood intermingled with pus made its escape. This did not seem sufficient to account for the symptoms, and by further bimanual examination he detected fluctuation on the right side, and with his finger broke through a thin wall and let out a teacupful of very fœtid pus. This was then washed out with his two-way catheter and a rubber drainage-tube inserted. Since then he has had his finger through that opening a number of times, for it has a great tendency to close. The case of Dr. Baldy's was instructive from the fact that it showed that there was a certain number of cases in which there is *dry peritonitis*, and the patients will sometimes die in spite of all treatment.

DR. WILLIAM GOODELL said that he congratulated Dr. Baldy on the courage he had shown in the treatment of his case, and he thought he had nothing to regret. He always felt a good deal of reluctance in reopening the peritoneal cavity, but he had to resort to it occasionally. He did not think that the best method of curing the hernia had been employed. In his opinion the most satisfactory plan is, after dissecting out the sac and thinned-out tissues, to close the opening with three series of sutures. The first unites the peritoneum alone with a continuous gut suture. The second, also of gut, sews together the divided edges of the tendon. The third, of silk and interrupted, penetrates deeply through all the tissues but that of the peritoneum, and brings the edges of the skin and muscles together. The reason that we get hernia is that we fail to unite the tendon. To avoid the occurrence of hernia he had often thought it would be a better plan to cut through one of the recti muscles, instead of the linea alba, for then we have a broad raw surface. He occasionally resorted to this plan in oöphorectomy, but it has the objection of being accompanied with more hemorrhage. In large ovarian tumors the recti muscles were so widely separated that he was *per force* compelled to cut through their tendon, at the same time he admitted that he did not ordinarily unite these edges by a separate suture as is the custom of some excellent operators in this country. His reason is that this takes a good deal of time and it is always desirable to close the wound as soon as possible. But occasionally in cases of large ovarian tumors, he cuts away a long strip of the thinned tendon on either side of the wound so as to bring the muscles close together. In a certain number of cases, however, hernia will occur, and this was one grave objection to the use of the drainage-tube.

DR. PARISH asked if Dr. Baldy thought that the hernia was caused by the extra-peritoneal method of treating the stump?

DR. BALDY said that the hernia was not due to the method of treating the stump. It began several inches above the stump and gradually extended towards it. He had, however, seen cases in which it occurred at the site of the stump, and he thought that this could not always be avoided on account of the large size of the pedicle and the subsequent contraction. He was glad to be able to criticise such a case in his own practice, as he could do so with more freedom than if it had happened to another. He thought it was his own fault that he had lost the patient. There were certainly enough symptoms to indicate the necessity for reopening the abdomen even a third or fourth time. The symptoms continuing after the first discharge of pus should have settled the question of reopening without any more delay. After the second discharge of pus he could not see why he had been so blind as to his duty. The patient would undoubtedly have recovered had the belly been opened early enough. Even as it was, after the long delay, she struggled along for about a week, but she was so thoroughly saturated with septic poison that she had not sufficient vitality left for the fight. He would not approve such a

policy of waiting in another, and could only excuse himself on the ground of lack of experience in such cases.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 3, 1888.

The President, A. JACOBI, M.D., in the chair.

DR. A. R. ROBINSON read a paper entitled,

Some Studies on the Sweat Glands.

The following were his conclusions: 1. Sweat glands commenced to form at the tenth week of fœtal life instead of in the fifth month, as stated by Kölliker.

2. At four and a half months the coil and lumen partly formed, instead of at the sixth or seventh month, as stated by writers generally.

3. Some ducts communicated with the free surface at four and a half months instead of at the seventh month.

4. The lumen is not formed by breaking down of epithelia, but by a process of secretion, the product collecting between the cells.

5. No cuticula, or lining membrane, existed in the secreting part of the gland, and this structure was not composed of endothelia. It was often present in the epidermis as far as the granular layer, and consisted of the footplate of the epithelia.

6. But one row of epithelium lined the excretory duct until the rete prolongation was reached.

7. The muscular layer is not derived from epithelium, and is situated between the membrana propria and the epithelium when forming a continuous layer, and when fibres are isolated a few might be in the capsule.

8. The sweat glands secrete not only fat, but also sweat. Proof of this was offered in a study of several pathological lesions.

9. Milaria rubra and milaria alba are forms of milaria crystalina or sudamina.

10. Lichen tropicus is a form of eczema situated around a sweat duct and associated with hyperidrosis.

11. Milaria crystalina (sudamina) is an exudative affection depending on a neuroparalytic congestion, and not a sweat gland disease.

12. There is an adenitis sudoripara resembling somewhat eczema or dysidrosis in clinical character.

13. There is a cystic disease of the sweat ducts with distinct clinical characters.

A description of the pathological findings in these several diseases was given, and went to show that the function of the sweat glands was not alone to secrete fat, as stated by Unna, but that they had the additional function of secreting sweat, the view which had generally been accepted.

DR. HEITZMAN did not regard the proof brought forward by Unna and others as to fat being secreted by the sweat glands convincing. He thought the muscular layer of the sweat glands lay external to the membrana propria.

Action on the proposition to extend the territorial area of membership of the Academy was postponed.

PERISCOPE.

Behaviour of the Blood in Ligatured Vessels.

Böttcher's researches on this subject, conducted according to the latest histological methods, are to be found in the *Arbeiten aus dem pathologischen Institut zu Königsberg.* They fully confirm the conclusions of Dr. Guterbock, also those of Professor Pick, of Prague, on the processes which occur in the (so-called) organization of thrombi. Böttcher finds that the blood contained in a portion of a vessel intercepted between two ligatures, applied under antiseptic precautions, does not coagulate. The changes which occur in the stagnated blood are as follows: 1. Arterial blood becomes venous in character by long standing. 2. The red corpuscles may remain perfectly intact, even after the circulation has been suspended for several weeks. 3. The leucocytes early undergo degeneration, even in a week, but their nuclei preserve their capacity for stains. 4. The blood-tablets may be found in well-preserved condition, even after several days' stagnation. Finally, enumeration of the various forms of leucocytes in rabbits' blood led to the conclusion that the "lymphocytes," that is, the small, uninucleated forms of leucocytes, poor in protoplasm, represent the majority of the leucocytes existing in the blood. This is contrary to the prevailing assumption on the subject, which puts these very forms in the minority. This is a point, as Guterbock remarks, of great importance in the study of the products of chronic inflammation, the leucocyte elements of which are mostly in the form of lymphocytes, as is well known, and this circumstance has been adduced as an argument against the hæmatogenous derivation.—*British Med. Journal,* January 21, 1888.

Early Rising and Longevity.

Professor Humphry's recent Collective Investigation Report on Aged Persons, contains some very positive evidence on a matter which has already engaged the attention of moralists as well as physicians. "The opportunity for nutrition to do its restorative work was in nearly all provided by the faculty of 'good sleeping,' to which was commonly added its appropriate attendant, the habit of 'early rising.'" Thus there is a relation between early rising and longevity. No doubt many people will hastily seize upon the sentence just quoted, and employ it in edifying lectures or essays for the perusal of youth, or embody it in popular medical works. Important qualifications follow in Dr. Humphry's report, but they are likely to be overlooked. Doubtless the habit of early rising is, in itself, healthy; most of all, it is a good sign of health when it evidently signifies rapid recovery from fatigue. Again, it usually denotes a strong will, the gift as a rule of a good physical constitution, or at least the safeguard of average bodily strength. Late risers are generally either invalids or persons of bad habits, idlers who are never free from other vices besides idleness. The nervous exhaustion which keeps a man wakeful thoughout the small hours produces sleep late in the morning. This exhaustion is invariably due to one of several life-shortening influences, especially anxiety or indiscretion in diet or drink. Early rising is thus rather one effect of certain favorable influences, another result of which is longevity, than a cause of longevity. To turn a weakly man out of bed every morning at 7 o'clock will not prolong his life. It will be noted that by "good sleeping" Professor Humphry signifies quick sleeping, "that is, the reparative work which has to be done in sleep is done briskly and well." Here, again, we have an effect of a cause; but preventing a weakly subject from sleeping more than four or five hours nightly would not cause him to live long, but would rather tend to shorten his life. Equally important are Professor Humphry's observations which show that by "early" he does not entirely mean the time by the clock. The word "has a relative significance with reference to the time of going to bed. A person who retires to rest four hours after midnight and gets up at 10 A.M. may be strictly regarded as an 'early riser.'" Thus, early rising is synonymous in long life histories, with short sleeping, which means rapid recovery from fatigue, a sign of bodily strength. These scientific facts in no wise contradict the alleged value of early rising as a practice to be cultivated by all persons in good health. It is excellent as moral discipline, and eminently healthy as a matter of fact. Most persons will eat three meals daily. When a man gets up late those meals will probably follow each other at too short intervals to be wholesome. When he is an early riser it will probably be otherwise. He can enjoy a good breakfast, and by the time for his lunch or mid-day dinner he will have an honest appetite again.—*British Medical Journal*, March 31, 1888.

Intra-Uterine Dentition.

In the *Boletin Clinico* of Lerida, Señor Lorens mentions a case of intra-uterine dentition. He recently attended a woman in humble circumstances in Barcelona during a premature confinement at six months. The child had already cut the four incisors and the two lower canines. Had the woman gone her full time the dentition would have probably been much further advanced.—*Lancet*, March 10, 1888.

Borofuchsin as a Stain for Tubercle Bacilli.

Professor Lubimoff describes in the *Meditsinkoe Obozrenie* a new stain for tubercle bacilli, which he calls borofuchsin. It consists of:

℞ Fuchsin.....7½ grs.
Boric acid.....7½ grs.
Absolute alcohol.....4 drachms.
Distilled water.....5 drachms.

When prepared in this way it has a slightly acid reaction; it is quite clear and not liable to spoil by being kept, and consequently it is always ready for use. The sputum is dried on a cover-glass and stained by being heated in contact with the borofuchsin for one or two minutes. The stain is then washed out by treatment with dilute sulphuric acid. The specimen is then washed with alcohol, and subsequently immersed for half a minute in a saturated alcoholic solution of methylene blue. After being washed in distilled water and dried, the examination of the specimen is made in oil of cedar or in a solution of Canada balsam. In exactly the same way sections of tuberculous organs may be stained after hardening in spirit, only in such cases the steps of the operation must be somewhat more prolonged. The main difference between this and other staining processes for Koch's bacilli is that, when borofuchsin is used, the process of washing it out with sulphuric acid is an almost instantaneous one. All other bacilli are, as when other stains are used, rendered colorless and invisible, the tubercle bacilli alone being seen.—*Lancet*, April 21, 1888.

Treatment of Empyema.

At the meeting of the Harveian Society of London, March 1, 1888, Mr. Mansell Moullin read a paper on the surgical treatment of empyema, based on an analysis of thirty-four cases. In sixteen of these a discharging thoracic sinus was already present. He pointed out that the primary cause of the collapse of the lung was the accumulation of fluid; but that the permanent cause of its non-expansion when the pressure was relieved was the alteration in the structure of the pleura and the lung itself, and that this alteration was the effect of the absorption from the irritating fluid in the cavity. When the air had already gained admission without drainage being perfect, so that the pus had decomposed, the thickening of the pleura was much greater and more obstinate than when the empyema had never been operated on at all. Everything pointed, except in children and tubercular cases, which were expressly excluded, to operation as early as possible. Primary resection of a rib was hardly ever required, unless the empyema was loculated; india-rubber tubes very soon wore the ribs away, so that there was little chance of their being nipped as the thorax collapsed. Two tubes must always be inserted, even if they were only a few inches apart; they might be in the same intercostal space, but there must be two for effective drainage. The most convenient situation was the one usually adopted, in the fifth or seventh interspace in the mid-axillary line. Washing out the cavity was quite unnecessary; if air was allowed to pass freely in and out there was no decomposition; the amount of pus discharged diminished almost to nothing, and the cavity rapidly closed in. In old cases the first thing was to establish free drainage by making a second opening; on five occasions it was necessary to trephine the ribs, as the wall of the chest had practically become a solid bony cuirass. In two cases some of the ribs had been resected; in one, two inches of four had been removed, in order to allow the thorax to collapse, but the patient, who was already suffering from amyloid disease, sank from exhaustion ten days after. In the other, portions of only two ribs were excised, as the sinus ran rather round the thorax, following the direction of those ribs, than upwards as in the former case. This was attended with considerable benefit. No trouble was experienced from the intercostal arteries on any occasion. The direction in which the sinuses run must in each case determine where the ribs should be cut, how many should be removed, and how much of each. Dr. Phillips criticised the view that an operation should be performed early. He had seen good results follow from aspiration. He also thought that two openings were not essential, and was prepared to show cases which had made a steady recovery after one. A hard-and-fast rule as to the best place for the opening could not be laid down.—*Brit. Med. Journal*, March 17, 1888.

Prognostic Significance of Blood Pressure in Acute Renal Disease.

In a paper read before the Medical Society of London, March 5, 1888, Dr. Broadbent said that though high arterial tension was present in almost every form of kidney disease, yet he had twice seen low tension when symptoms of renal cirrhosis were present. In acute renal dropsy, when the pulse beats were short and easily arrested, it indicated temporary dilatation and weakness of the left ventricle; from this the heart afterwards recovered. A continued defect of tension might be due to persistent cardiac weakness, and this latter was of unfavorable prognostic import; in other cases it indicated diminished peripheral resistance, and this also was of bad augury. He quoted the case of a carman of sober and steady habits, who was admitted into St. Mary's Hospital with acute renal dropsy of four days' duration. His mother had been of intemperate habits, and he had undergone privation two years previously, but no exciting cause of the attack could be found. He had swelling of the face, scrotum and extremities, a bad cough, and solid, albuminous urine, containing epithelium and casts. The temperature was subnormal; the pulse 64, short and weak. The first cardiac sound was short, the second weak, and there was extension downwards of dulness. Dr. Broadbent pointed out that the most certain cause of albuminuria was the languid movement of blood in the renal capillaries, and the indication here was to improve the circulation. Under a mixture of iron, sulphate of magnesia, nux vomica and digitalis, the dropsy diminished, the pulse became of better volume and not so compressible, and the albumin diminished to a little more than a trace. The patient was allowed to get up too early, and this brought about a temporary increase in the albuminuria. The imperfect development of blood pressure showed the nature of the patient's constitution, and might be made use of in prognosis. It indicated a long illness, and the necessity of the use of vascular stimulants.—*Lancet*, March 10, 1888.

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THE IMPROVEMENT OF MEDICAL EDUCATION.

At the last annual dinner of the Alumni of the Medical Department of the University of Pennsylvania, the Provost, Dr. Pepper, made a speech in which he described the advances made in the University during the last ten years toward a fuller and better system of medical education, and the hopes entertained by the Alumni and the Faculty that still further advances would be made in the near future. The success with which the University has maintained the system of an obligatory three years' graded course and longer annual terms has encouraged its friends to hope that very soon the period of study may be increased to four years. This hope is in the line of the wish of many advocates of higher medical education in the United States, as voiced by Dr. Garnett in his Presidential address at the last meeting of the American Medical Association, in Cincinnati. But we believe it is by no means certain that the object of this hope is likely to be reached very soon. The few institutions in this country which have so far adopted and adhered to the system of a three years' graded course have done so at considerable risk, and with a material diminution of the number of their students; and one of the most popular and widely known medical schools in America suffered so much in consequence of a step of this kind that it was compelled to go back almost immediately to the old two-term system. It cannot be said that the three years' system has yet established itself firmly, and we fear that an attempt to inaugurate a four years' system might not only fail of success, but actually imperil the stability of what seems now to be on the way to success.

At the dinner referred to, Dr. Alfred Stillé, Dr. Traill Green and Dr. William Hunt also spoke, and all of them urged the importance of making sure of a firm footing before attempting any further advance, and all seemed to feel that an attempt to establish very soon a curriculum covering four years of study within the walls of a medical school would be hazardous to the cause of higher education.

This feeling we know to be shared by many men who regard with satisfaction what has already been attained, and who hope to see still more accomplished. As we understand the matter, the things to be urged most strongly upon the medical schools of America just now are: first, the general exaction of an honest and adequate preliminary examination of those who propose to study medicine; and, second, the general adoption of a three years' course of intra-mural study. If these two things could be secured, the improvement in medical education would be enormous—far greater, we believe, than would be gained by the adoption of a four years' course by a few schools. For this reason, we believe that the friends of higher medical education would do well to devote their energies to persuading, or—if need be—compelling, all the medical colleges of the United States to adopt these measures, which a few have shown to be both desirable and feasible, rather than to widen the gap which even now separates the best schools from those which secure the largest number of students.

But there is another measure which, if it were adopted, would simplify very much the question we have been considering, and almost do away with the necessity for insisting on uniform conditions of study. This is the enforcement by law of a suitable examination by State or National Boards of candidates for a license to practice medicine. If this were secured, we believe all questions of medical education would soon be satisfactorily settled. Then the schools which furnished the best means of education would secure the largest number of students, and good education would be at a premium, instead of cheap and easy graduation.

For the present then, we believe the friends of higher medical education ought to labor most earnestly to have medical schools restricted to the work of educating their students, and to put the right to issue licenses in the hands of examiners who are not connected with the schools at all. This is the most urgent need just now, and to this we invite the thoughtful attention and active cooperation of our readers. Let them in their County and State Societies labor with earnestness and patience for the establishment of State Examining Boards, and we believe that before long the problem of medical education in the United States will be fully and satisfactorily solved.

ECTOCARDIA.

Among all the anomalies of development in human beings, none is more curious or more interesting than that in which the heart occupies an abnormal position or is devoid of its usual coverings. As long ago as 1826, Breschet published in the *Répertoire Général d'Anatomie et de Physiologie Pathologiques*, a paper on such anomalies, and a few years later Geoffroy Saint Hilaire included this subject in his admirable work on teratology. A number of cases have been reported in which the heart was in a situation more or less removed from the normal one, and exposed to view because of the lack of development of its coverings. In all of these cases, until very recently, death soon followed the birth of the child. But the *Bulletin Médical*, May 9, 1888, contains a paper read by Professor Lannelongue before the Académie de Médecine on May 7, reporting a case of this sort, in which he performed a plastic operation, and had the satisfaction of seeing his little patient recover and survive. This interesting case concerned a little girl six days old, when she was brought to Prof. Lannelongue, Feb. 15, 1888. She had a defect of the upper and middle part of the sternum and the overlying soft tissues, which left the ventricles of the heart exposed. The defect was about as large as a quarter dollar piece. At the time when she was first seen by Prof. Lannelongue there was a sort of membrane almost covering its heart, which presented a gangrenous appearance, and which soon sloughed away. After instituting some physiological investigations of the action of the heart, and waiting nine days to mature his opinion as to what should be done, Prof. Lannelongue closed the gap by a plastic operation, consisting in making two vertical incisions parallel to the long axis of the opening, and about half an inch from each edge, loosening the slips of skin, and sliding them toward the median line, until they could be united with three points of silk suture. Good, but not immediate, union followed, and in less than twenty days the whole surface was cicatrized and the opening closed.

The story of this case is of more than ordinary interest, because it furnishes a happy illustration of the result of a rare condition coming under the care of a man thoroughly competent to treat it. The history of the case does not indicate how it happened that the child was six days old before it was brought to the notice of a surgeon, and it is only just to our French brethren to suppose that the infant was born under the guidance of a midwife, and not of a physician. When the child was brought to Prof. Lannelongue, it was subjected to an operation so simple and so easy of performance as to reflect credit upon the judgment of the surgeon, but one which was hardly so remarkable as to justify the pride which it

seems to have excited in the hearts of his fellow Academicians.

In fact, while the operation was undoubtedly judicious and deserving of imitation, the interest of the case is largely that which attaches to its rare and curious nature, and—we venture to say—to the questions of embryology and physiology which it suggests. It would be useful to learn several things which are not stated in the report, for example: the appearance of the defect when the child was born, the character of the membrane which sloughed off, and the part borne by the process of ulceration in producing the complete defect. Finally, the exceedingly interesting report given by Prof. Lannelongue might be regarded as more complete if he had discussed the feasibility of some method of assisting nature to bring together the separated halves of the sternum.

These reflections suggest lines of thought which we cannot now follow out; but we commit them to our readers for their own pursuit. Certainly the case we are considering is rare and curious enough to engage more than passing attention.

THE AFTER-TREATMENT IN CATARACT OPERATIONS.

At the meeting of the American Medical Association, in Cincinnati, May 8, 1888, Dr. Julian J. Chisolm read before the Ophthalmic Section a paper describing the simple dressings used at the Presbyterian Eye and Ear Charity Hospital of Baltimore, after operating for cataract. From May 1, 1887, to May 1, 1888, Dr. Chisolm has treated seventy-four cases of simple senile cataracts. All of these were operated upon in the operating-room of the hospital, on a high, narrow table, and before large windows. In every case the biniodide of mercury solution (1 to 20,000) was freely used, both before and after the operation, as an antiseptic wash. After the operation for cataract extraction he has closed only the eye operated upon with a piece of white isinglass plaster, leaving the other eye open. None of the patients were put to bed. They were kept in a moderately lighted room, and were allowed to lie, sit or walk about as they wished. They dressed themselves, took their regular meals, received their friends daily, and had as little restraint imposed upon them as possible. The isinglass strap was inspected daily. It usually remained firmly adherent until the fourth or fifth day, when it was removed. As it was diaphanous, the condition of the eye-lids and eye secretions could be readily examined. Should the eye be painful at any time an atropia drop could be introduced by capillary action from the inner canthus. Salicylate of sodium was also given in twenty grain doses to sooth the eye and the patient. After four or five days the strap was removed and the eye left exposed. No smoked glasses were used, and none were needed. Dr. Chisolm has shown by his year's experience that if one eye is left open the other never becomes sensitive to light. When the strap is removed there is no weeping and injections, with photophobia—as is always seen when the patients' eyes have been dressed by bandages and they have been kept in dark rooms. The conclusion forced upon Dr. Chisolm is that most of the annoyances which follow upon cataract operations when the double bandage is used, do not depend upon the traumatism of the eye, so much as upon the too confining dressings. With seventy-four simple senile cataracts operated on during the year, not an eye has been lost. In every case a clear cornea has been preserved. In only two cases were the pupils closed from iritis, which will necessitate an iridectomy for the restoration of good sight. In no case was there suppuration. Dr. Chisolm's opinion is that when the operation of cataract extraction is smoothly done, and with every antiseptic precaution, it matters little what kind of after-treatment is adopted—good sight in every case is practically assured. If such results follow his method, then the annoying restraints heretofore practiced by all, and still used by many operators, are uncalled for.

During the discussion of the paper, many specialists present at the meeting endorsed Dr. Chisolm's conclusions, having adopted his method of light dressings with freedom of movements to the patient.

This method is one which seems, therefore, to be approved by experience, and to have decided advantages over those which were formerly considered necessary. To the patient it must be no small gain to be free from the disagreeable restraint of the bandage, and to be able to enjoy the pleasure of vision after operation, as well as to seem to himself and to his friends less an invalid than is possible with bandaged eyes and in a darkened room; while to the surgeon it must be a great satisfaction to know that this freedom from restraint is not gained at the cost of an increased risk, but rather contributes to a speedy and safe recovery.

WOUNDS OF THE PALMAR ARCH.

At a meeting of the *Société de Chirurgie*, of Paris, May 2, 1888, M. Bosquet reported a case in which the palm was severely cut with a fragment of a bottle, so that the flexors of the thumb and index were completely divided, and there was a profuse hemorrhage. After trying in vain, and for a long time, to ligate the divide vessels in the palm, M. Bosquet ligated the radial and ulnar arteries, presumably in the wrist. After this communication had been read, M. Championnière expressed the opinion that good compression would have controlled the hemorrhage and obviated the necessity for the operation of ligation in the wrist. To which M. Bosquet replied that he had feared to use prolonged compression on account of the pain it would cause.

We call attention to this occurrence because it indicates what we believe is a widespread error in regard to the treatment of wounds of the blood-vessels in the palm. Most works on surgery and most surgical teachers advise having recourse to ligation of the radial and ulnar arteries, when ligation at the original wound is very difficult, in a way which appears to do injustice to what can be accomplished by local compression; and M. Bosquet evidently ignores the value of compression, while M. Championnière appreciates it fully.

As a matter of fact, we believe that few wounds of the palm absolutely require ligation of the vessels in the wound, or anywhere else. And we think that the rule of practice ought to be: ligate in the wound, if this can be done without prolonged or laborious effort; and, if not: elevate the part and apply a compress which has been soaked in cold water, or some mild astringent, and then squeezed fairly dry, binding it on with moderate, but not excessive, firmness, and maintaining the hand in an elevated position. No one who has not tried it would believe how much can be accomplished by a rational use of elevation and moderate compression in the case of wounds of even quite large arteries; and we believe that distant ligation should never be appealed to until the method just described has been fairly tried. Certainly in wounds of the palm much trouble to the surgeon and some risk to the patient might be avoided if it were thoroughly appreciated.

CATHETERIZATION OF THE URETERS.

Catheterization of the ureters has lately been brought into prominence by several writers, and the subject is unquestionably one of great promise and importance. Its range of application too, is by no means so limited as would first appear. It can not only be used as a diagnostic measure, but it is also a most valuable aid in the treatment of urethritis, pyelitis, and sacculation of the pelvis of the kidneys and ureter. By means of this operation the urine from each kidney can be separately collected for examination, and the relative condition of the two kidneys can be much more accurately diagnosticated than has heretofore been possible. In cases of stone in the kidney or its pelvis, or other morbid condition, when nephrectomy or nephrotomy is indicated, the value of this method in deciding which kidney is diseased is apparent. We are not aware, however, that this has been applied in practice, except in the case of Iversen mentioned in our editorial in the REPORTER, May 19, 1888. By the use of the renal sound, stone in the ureter or renal pelvis can be diagnosticated. Thus far catheterization of the ureters has been principally employed in the treatment of catarrh or sacculation of the ureter and pelvis

of the kidney, by irrigation. Only women have been subjected to the operation. The catheter has been passed into the ureter, under the eye, through a vesico-vaginal fistula, or through the dilated urethra, employing the finger as a guide or free-hand, aided by a knowledge of the position of the urethral orifice, previously obtained by bi-manual examination. In some of the cases operated on, the fistula has been the result of traumatism, in others, it was made intentionally to insure drainage, and to facilitate catheterization. In the male, preliminary or supra-pubic cystotomy, would be necessary; but, since catarrh and dilatation of the ureter and pelvis of the kidney are usually secondary to cystitis, this is hardly a contraindication, especially when the very serious nature of the conditions is considered.

ACKNOWLEDGMENT.

We take pleasure in acknowledging our indebtedness to the reports published in the daily issue of the Cincinnati *Lancet-Clinic* for a part of our report of the proceedings of the last meeting of the American Medical Association. The work of our own special reporters was admirable, but by adding to it some extracts from the *Lancet-Clinic*, we have been enabled to present our readers with a report which was prompt, and, we believe, accurate, and which we trust will prove satisfactory to them.

—The *Ledger*, May 29, 1888, says that M. Oscar Schmidt, professor at the University of Gratz, in Styria, has discovered a method by which pieces of living sponge can be broken off and planted in a favorable spot. From very small cuttings of this kind Professor Schmidt has obtained large sponges in the course of three years, at a very small expense. One of his experiments showed that the cultivation of 4000 sponges had not cost more than 225 francs, including the interest for three years on the capital expended. The Austro-Hungarian Government has been so much struck with the importance of these experiments that it has officially authorized the protection of this new industry on the coast of Dalmatia.

Book Reviews.

[Any book reviewed in these columns may be obtained, upon receipt of price, from the office of the Reporter.]

QUESTIONS AND ANSWERS ON THE ESSENTIALS OF PHYSIOLOGY. PREPARED ESPECIALLY FOR STUDENTS OF MEDICINE. By H. A. HARE, B.Sc., M.D., etc. With Illustrations. 8vo, pp. 170. Philadelphia: W. B. Saunders, 1888.

This book differs from most works intended for the use of medical students in that it imitates the style of the quiz class, being prepared in the form of questions and answers. The matter—as might be expected from the reputation of the author—is most excellent. The manner is dogmatic and well suited to the needs of the student preparing for examination. The author justifies his method by citing the existing state of medical education in this country, and some of his statements by the fact that physiology is a branch of science in which change is constantly occurring, so that a definite answer to certain questions is not unlikely to differ from the opinions of some authority. The needs of medical students, however, necessitate definite answers, and those given in this book represent very well the present state of knowledge in physiology.

A TREATISE ON FRACTURES AND DISLOCATIONS. VOL. II.—DISLOCATIONS. By LEWIS A. STIMSON, B.A., M.D., Professor of Clinical Surgery in the University of the City of New York, etc. Large 8vo, pp. 541, with 163 illustrations. Philadelphia: Lea Brothers & Co., 1888. Price: cloth, $3.00; leather, $4.00.

This is a very handsome and complete treatise on dislocations, and a fitting companion to the volume on fractures issued some time ago by the same author. Dr. Stimson has had a large and varied experience in the treatment of dislocations, and is thoroughly familiar with the opinions and methods of other surgeons in this country and in Europe. As a consequence, the volume before us will undoubtedly add to his reputation as a surgeon and as an author, and it can be recommended to our readers as a safe guide in practice. If we were to offer a criticism, it would be that, in the fulness of his descriptions, he has included some methods which are hardly other than surgical curiosities, and which are neither necessary to success nor indeed practicable for most surgeons. Still this adds to the completeness of the book, and does not detract from its merits.

MEMORANDA ON POISONS. By THOMAS HAWKES TANNER, M.D., F.L.S. Sixth American, from the last London Edition. Revised by Henry Leffmann, M.D. 32mo, pp. 177. Philadelphia: P. Blakiston, Son & Co. 1888. Price, 75 cents.

This admirable little book has been so long and so favorably known to the profession that it is not necessary to speak particularly of its merits. But to those who are not already familiar with it, it may be worth while to say that it is a compact and handy manual of the treatment of poisoning, arranged in such a way as to be a ready reference book for emergencies of this sort. It is a good book for students of medicine to carry in their pockets, and not a bad one for any practitioner.

Literary Notes and Queries.

[In this column the Reporter will publish short items of literary interest and questions addressed to this Journal or its readers, and answers to them, in regard to any literary matters: books, authors, places and prices of publications, etc.]

—The prospectus of the *Texas Health Journal*, just received, announces that it is to be published as a monthly magazine, each number to contain thirty-two pages of reading matter devoted to the education of the people of that vast State in matters of sanitation, preventive medicine and dietetics. The editor is Dr. J. R. Briggs, and the place of publication, Dallas, Texas. The subscription price is to be $2.00 a year. The object of this journal is one deserving of hearty commendation, and it has our best wishes for its success.

—The publication of a new journal, entitled *Revue sur les Malauies du Système Nerveux*, under the direction of Professor Charcot and M. Paul Richer, is announced. It will contain clinical observations and a descriptive account of the diseases of the nervous system observed at the Salpêtrière, in Paris.

Correspondence.

Appendix Vermiformis.

Editor Med. and Surg. Reporter:

Sir:—I notice in the Reporter, May 12, 1888, page 587, that Dr. Gaston says that the appendix vermiformis is not found in the lower animals, with the exception of some of the monkey tribe. In this he is certainly mistaken. It is present in the horse, sheep, chicken, and I think in the hog. I lost a valuable horse from strangulation of the small intestines, caused by the far extremity of the appendix adhering to the colon, forming a loop in which the constriction took place. I have always understood that condoms were made from the blind gut of the sheep. And as to the appendix in the chicken, I am very sure of that, having used them frequently in making a sac of thin peritoneal coating to be used in plugging the nose to stop hemorrhage.

Yours truly, A. Ady.

Muscatine, Iowa, May 17, 1888.

Formula for Paraldehyde.

Editor Med. and Surg. Reporter:

Sir:—I have occasionally desired a hypnotic for cases in which it was not advisable to administer any preparations of opium nor chloral hydrate. Paraldehyde appeared to act favorably in nervous irritability, or even cerebral exhaustion, as well as hyperæmia and insomnia, especially the latter; but it is a substance quite unpleasant to swallow. As the result of several experiments, I offer the following as forming a clear solution, which can be administered alone or mixed with water, without change:

℞	Paraldehyde	2 fl. drachms
	Glycerine	4 fl. drachms
	Simple syrup	8 fl. drachms
	Sweet spirits of nitre	10 fl. drachms

Oil of sweet orange (or oil of anise) twenty drops to flavor. Mix and unite by agitation. Dose.—One to four fluid drachms every hour, or two to four hours.

After standing a short time it loses some opacity and becomes clear. A few drops of tincture of cochineal is advisable to color. Alcohol may be substituted for the spirits of nitre, but in cases, requiring a rather large dose, might not be advisable. If any one can furnish a formula superior to the foregoing it would be a favor to do so.

Allen A. Rawson, M.D.

Corning, Iowa, May 10, 1888.

"Wasted Sunbeams—Unused House-tops."

Editor Med. and Surg. Reporter:

Sir:—I thank you for your editorial notice of a recent article of mine under the above heading—believing it to be a subject worthy of wide consideration.

I made two special points. First, a rearrangement of the upper floors of dwellings, so that "solaria" might be afforded for use in winter by children, invalids and others in the colder months. Second, a utilization of roofs as "home parks" in our cities. Allusion was made to ancient usages in these respects, with the suggestion that architects and sanitary science adapt such usages to modern homes and present civilization. The paper was suggestive; and though having well-defined designs of construction in my mind, left details for architects to define, as being best adapted to varieties of dwellings. Having consulted civil authority and the highest architectural and sanitary experts in regard to the feasibility of my suggestions, I can speak most cordially on the subject.

A recent writer in one of our great dailies, speaking from a practical knowledge of the subject, said: "The Board of Health, if necessary, could as readily regulate this matter of 'home parks' as it can other matters relating to the public health." * * * "Architecture and sanitary science are fully equipped to undertake the grand hygienic innovation proposed. Dr. Smith's suggestions are perfectly practicable, and if adopted, would add to the health, happiness and longevity of the people."

I thank you again for commending the ideas to the attention of your readers, "in the

hope that some of them may be able to suggest a plan by which they can be carried out."

Yours truly,

GOUVERNEUR M. SMITH.

14 East 17th St., New York City,
May 21, 1888.

Prescription for Headache.

EDITOR MED. AND SURG. REPORTER:

Sir:—I have tested the efficacy of the following prescription in no less than twenty cases, and find it by far the most valuable "headache cure" that it has ever been my good fortune *to try*, or to have seen recommended:

℞ Antipyrin.....gr. xv
Potassium bromide.....gr. xv
Tr. digitalis.....gtt. vij
Aquæ q. s. ad.....℥ ss
Mix. Sig.—Take at once. (For adults.)

The above is especially indicated in headaches of fevers, accompanied as they are, for the most part, by nervous phenomena, cerebral congestion, and a full bounding pulse. Also in the condition designated as "migraine," and in headaches of hysterical women.

In like conditions I have exhibited atifebrin, sometimes with success; less marked, however, than with antipyrin. Generally speaking, antifebrin seems to have a happier effect when the headache is occipital, and the heart's action rather weak.

In comparing the two, omitting, however, their relative sedative influence upon nerve tissue, the greatest advantage possessed by antipyrin over antifebrin is its *solubility;* which makes it of infinite value in malarial hyperpyrexia, accompanied by either coma or irritable stomach, or both, in which cases it may be administered hypodermatically.

Yours truly,

J. T. BRINGIER, M.D.

Burnside, La.,
May 15, 1888.

Electrical Treatment of Pruritus Ani.

EDITOR MED. AND SURG. REPORTER:

Sir:—Dr. Stanbury Sutton is, in my view, correct in his estimate of the neurotic origin of pruritus ani and its treatment. Galvanism and Faradism will cure it, especially if combined with sodium bromide in large doses, hypophosphites, arsenic and regular laxatives.

Static electricity is better than Faradic, and easier and cleaner in application. This trouble, and eczema, so often occur incidentally in neurological practice, and these patients sometimes come to us for relief after the dermatologist has failed, so that a neurologist must of necessity get considerable experience in its management. There is a special form of hyperæsthesia in pruritus and a vasomotor paresis which under static electricity disappear as if by magic. I have seen the reddened and irritated skin about the coccyx and perinæum in the affection become promptly blanched by one seance, and the patient go out of the office completely comfortable for hours after one treatment. This must be followed by nightly doses of from forty to sixty grains of bromide of sodium combined, etc., as above indicated and often repeated to secure relief.

Yours truly, C. H. HUGHES.

St. Louis, Mo.,
May 7, 1888.

NOTES AND COMMENTS.

Battey vs. Tait.

One of the most exciting scenes which occurred at the late meeting of the American Medical Association at Cincinnati, was the speech of Dr. Robert Battey, of Rome, Ga., in which he discussed the question of priority in the Battey (or so-called Tait) operation. He completely captivated the section and was greeted with cheer after cheer. Those who know Tait's arrogance and self-conceit enjoyed the speech exceedingly, and to one who had heard Tait stand up in the British Medical Association at Dublin, and call American medical men "tramp doctors," it was a treat ever to be remembered. There are about this country certain young gynecologists who have gone to Tait, paid their twenty guineas for a month's assistanceship, and must continually talk about their teacher.

In discussing the paper which brought the subject up, Dr. Battey said: The author seems to know nothing about American work, in his use of the term Tait's operation. Tait cares nothing about the change of life; he operates for pain, not disease. The author argues this change of life very strongly. There was a humble American surgeon, who before this time, away back in 1872, suggested this operation and described it; years before Tait was heard to speak on the subject. The author of the paper speaks of Tait's struggles in introducing this operation. The older members of the profession will remember the struggles of the operation in the Georgia State Medical Society, The American Medical Association, and the American Gynecological Association. This was going on for years,

and Tait said nothing until May, 1879. Are we to accept the simple say-so of Tait that he thought of this operation and said so to Dr. Chadwick of Boston? Dr. Chadwick does not remember it; he may have said it, but he cannot certify that he did. Why should Mr. Tait come in at the end of the fox-chase and claim the tail of the fox? I have sat too modestly in my chair and allowed Mr. Tait to talk about "his operation." I despise this little quibbling fight, but when a member of my profession in my own national association talks so much about "Tait's operation," it is too much. Mr. Tait has recently shown so much modesty in saying that possibly it might have been thought of before, that you would not recognize that it was Mr. Tait. [Applause.] I forbear to reveal the secrets of Mr. Lawson Tait's hospitality to me in 1881, but he may provoke me to do so. [Hear! hear!] A little latter while enjoying the hospitality of Dr. Mathews Duncan, that straightforward specimen of a Scotchman, he said to me that he had hoped not to be called upon to invoke the aid of this operation, but he had. What Dr. Duncan said of Mr. Lawson Tait, deponent saith not. [Applause.] Mr. Tait found it necessary to resurrect a patient at the Congress of 1881, who was recorded dead years before in his own hand-writing. When asked how about this, he said: "Only a little clerical error." May God forgive Mr. Lawson Tait and prevent me from falling into his ways. I had to go over and pitch the battle in the British Medical Association under the nose of Mr. Tait. He referred to Tait's paper—"Normal Ovariotomy"—in the *British Medical Journal* in May, 1879. The essence of my operation is the change of life; Mr. Tait does not operate for this, and here is the dividing line. Hegar's operation is the Battey operation; he claims nothing else. It is only his friends who call it the Hegar operation.

The 0.25 Dioptric Cylinder the most Valuable Lens in the Trial Case.

Dr. Julian J. Chisolm read a very practical paper on the above subject before the Ophthalmological Section of the American Medical Association at its recent meeting in Cincinnati. He quoted text-books to show that very few writers on refractive errors were disposed to recognize less than a 0.5 cylinder for the relief of eye pains, and that V = $\frac{20}{20}$ was considered incompatible with astigmatic errors. From his very large experience over many years, he is able to formulate the statement that painful eyes, although they possess V = $\frac{20}{20}$ can have low degrees of astigmatism, and that such is a common fault in the over-worked, painful eyes of students. During the last year he had prescribed glasses for 986 astigmatic eyes, 546 of which exhibited a fault of only 0.25 of a diopter, and yet this small degree of error would not permit these irritable, painful eyes to be used. The correction of the fault restored at once comfortable vision. The use of a 0.25 D. cylinder by these eyes made the difference between not being able to read at all, and reading for hours at a time. Many ophthalmic surgeons both in their practice and their writings do not correct less than a 0.5 diopter astigmatic fault. In a great many of these cases the eyes continue to pain on use because of an over-correction. When glasses of only half this strength are used comfort is at once re-established. In over-worked eyes of the young great irritation and reflex annoyances develop from small degrees of irregular vision. Headaches of daily occurrence, which are attributed by one physician to gastric disturbance, by another to hepatic or renal or uterine troubles, by a third to nervousness, or to spinal irritation, and which in their continuance for months have resisted the skilled treatment of physician and gynecologist, have yielded promptly and perfectly to the continued use of weak cylinder glasses. Dr. Chisolm says in his paper that the reason why specialists do not find these low degrees of astigmatism is that with their preconceived views of its non-existence they do not look for it. The result is that many patients who seek their advice with painful eyes go away unrelieved. As he is aware of its importance and of the great annoyance which a 0.25 D. astigmatism occasions, he is always on the lookout for it, and frequently finds it to the very great relief of his patients. He prescribes more 0.25 D. cylinder lenses than any other; as very decided benefit comes from their use, he is forced to believe that this, the weakest of all the cylinders of the trial case, is in practice the most valuable.

Anti-Vaccinators.

It is stated that the partisans of the medical doctrines opposed to vaccination are organizing a Congress to be held in Paris in September next. The aim of the anti-vaccinators is to show that vaccinal inoculation is of no effect in preventing small-pox in spite of what has been proved by statistics; that the improvement in public health is the sole cause of the diminution of epidemics, and they point out that the Jennerian lymph is only a syphilitic virus more or less pronounced.

Rectal Insufflation of Hydrogen Gas in the Diagnosis of Penetrating Wounds of the Abdomen.

In concluding his paper on this subject, at the the last meeting of the American Medical Association, Dr. Senn expressed himself as follows: After a careful study of the subject of rectal insufflation of hydrogen gas in its various aspects, I do not hesitate to recommend its adoption in practice as an infallible diagnostic test in demonstrating the existence of a wound of the gastro-intestinal canal in penetrating wounds of the abdomer, without resorting to an exploratory laparotomy. In conclusion, I beg leave to submit for your discussion the following propositions:

1. The entire alimentary canal is permeable to rectal insufflation of air or gas.

2. Inflation of the entire alimentary canal from above downwards through a stomach-tube seldom succeeds, and should therefore only be resorted to in demonstrating the presence of a perforation or wound of the stomach, and for locating other lesions in the organ or its immediate vicinity.

3. The ileo-cæcal valve is rendered incompetent and permeable by rectal insufflation of air or gas under a pressure varying from one-fourth of a pound to two pounds.

4. Air or gas can be forced through the whole alimentary canal from anus to mouth under a pressure varying from one-third of a pound to two pounds and a half.

5. Rectal insufflation of air or gas to be both safe and effective must be done very slowly and continuously.

6. The safest and most effective rectal insufflator is a rubber balloon, large enough to hold 16 litres (quarts) of air or gas.

7. Hydrogen gas should be preferred to atmospheric air or other gases for purposes of inflation in all cases in which this procedure is indicated.

8. The resisting power of the intestinal wall is nearly the same throughout the entire length of the canal, and in a normal condition yields to diastaltic force of from eight to twelve pounds of pressure. When rupture takes place it either occurs as a longitudinal laceration of the peritoneum on the convex surface of the bowel, or as multiple ruptures from within outwards at the mesenteric attachment. The former result follows rapid and the latter slow inflation.

9. Hydrogen gas is devoid of toxic properties, non-irritating when brought in contact with living tissues, and is rapidly absorbed from the connective tissue spaces and all of the large serous cavities.

10. The escape of air or gas through the ileo-cæcal valve from below upwards is always attended by a blowing or gurgling sound, heard most distinctly over the ileo-cæcal region and by a sudden diminution of pressure.

11. The incompetency of the ileo-cæcal valve is caused by a lateral and longitudinal distension of the cæcum, which mechanically separates the margins of the valve.

12. In gun-shot or punctured wounds of the gastro-intestinal canal insufflation of hydrogen gas enables the surgeon to demonstrate positively the existence of the visceral injury without incurring the risks and medico-legal responsibilities incident to an exploratory laparotomy.

Ether Drinking in Ireland

In some places in the north of Ireland ether is largely used as a substitute for whiskey, one reason being its cheapness, inasmuch as a person can obtain for a penny sufficient ether to make him drunk. The subject of ether drinking was recently brought before the General Synod of the Irish Church. A clergyman proposed that a petition be presented to Parliament praying for the suppression of the sale of ether as an intoxicant in certain districts; but as it was pointed out that ether was sold for other purposes than as an intoxicant, he substituted the word "regulation" for "suppression," and the motion as amended was adopted. There is a special kind of ether sold prepared for drinking purposes, and although the Excise authorities have been applied to, they have refused to control its sale.—*Lancet*, April 21, 1888.

Peculiarity of American Eyes.

The efforts of the War Department to secure a field glass of greater power than the one they now use, has disclosed the fact that the eyes of the average American are closer together than those of men in foreign countries. The double glass, known as the field glass, now used, is weaker than that used in the armies of Europe. The only glass they can get of sufficient power is a single spy-glass, which is defective, in that it does not take in a broad enough field. This is a very serious defect in the equipment of the American army, but there seems to be no immediate prospect of its correction, because our eyes are too close together. Some of the colored troops may be able to use a different glass, but the white soldier cannot overcome this national peculiarity.

Alcohol.

Prof. Atwater says in the *Century:* Among the curious side issues of the current temperance discussion is the question whether alcohol is a natural product. This is, I believe, vigorously denied in some quarters. Alcohol, like bread, is manufactured artificially from a natural product. In each case fermentation, a natural process, is made use of. But while bread is known only as a product of manufacture, alcohol appears to be very widely distributed in nature, though in extremely minute quantities. Nor is this at all surprising. If grapes or apples, or their juice, be exposed to the air, fermentation sets in and the sugar and other carbohydrates are changed into alcohol. The ferments which cause the change are afloat in the air all about, and might not unnaturally attack similar compounds in other vegetable substances. Prof. Muntz, of the National Agronomic Institute, in Paris, has, by refined chemical tests, discovered evidences of alcohol in cultivated soils, in rain-water, in sea and river water, and in the atmosphere. He finds that vegetable molds may contain considerable quantities, and it appears probable that the alcohol "originates in the soil, from the fermentation of the organic matters in it, and is thence diffused as vapor in the atmosphere." Another side issue of our temperance discussion is the so-called "Bible wine" theory, which maintains that the wine used in Palestine in the time of Christ was not alcoholic. I have been unable to find evidence that the composition of the juice of the grape, the laws of fermentation, or the practice in the making and using of wine were different in that country at that time from those in other countries, or in that country at other times; and believe it safe to say that the theory that Bible wine was different from other wine, that it had not the alcohol which other wines contain, is without any basis to support it, in the opinion of the student of science.

Olive Oil for Gall Stones.

At the meeting of the Berlin Medical Society, April 18, 1888, S. Rosenberg exhibited 629 gall stones which were discharged from a patient after he had been treated with large doses of olive oil, as lately recommended in America. Doses of from three to six ounces were given. The gall bladder, which before the treatment was of the size of a small fist, has become so shrunken that it can now scarcely be felt, while the previous extreme distress of the patient has considerably diminished.—*Deutsche med. Wochenschrift*, April 26, 1888.

Distilled Water.

In his valuable "Manual," Adolph Vomacka says: "It is not every water that is fit for use in the preparation of a pure distilled water, and certain it is that the so-called "distilled water," which is merely a by-product of other processes (condensation water from steam engines, for instance), is not fit to use in most of our pharmaceutical laboratory work. We must have for these, and especially for hypodermic injection solutions, an absolutely pure distilled water. To obtain this Vomacka recommends following the directions of the Pharmacopœia of the Netherlands, which are in effect as follows: Add to the water which you intend to distil potassium permanganate, so long as the violet color produced by each dosage is evanescent. When this is no longer the case, add a solution of alum until a weak acid reaction is obtained. Let the water stand until a precipitate no longer falls. Draw off the limpid portion and distil, throwing away the first and last thirds which pass over; in other words, distil one-third, and throw away the distillate; distil, and reserve for use only one-half the remainder. This distillate may be relied on as chemically pure. *National Druggist*, April, 1888.

Antifebrine Mixture.

The *American Druggist*, April, 1888, gives the following:

Antifebrine	60 grains
Brandy	4 fl. drachms
Water	6 " "
Syrup	6 " "

Dissolve the antifebrine in the brandy, then add the other ingredients. Dose, a teaspoonful.

Milk Jelly.

As a variation in milk diet, the following is recommended by Prof. Liebreich:

Heat 1 quart of milk with 1 pound of sugar, and when the sugar is dissolved continue the heat, at a boiling temperature, for about ten minutes. Now cool it well, and then add, *slowly* stirring, a solution of 1 ounce of gelatin in a cupful of water. Next add the juice of 3 or 4 lemons and 3 wineglasses full of wine, brandy or other liquor. Set the glasses containing the mixture in a cold place, so that the contents may gelatinize. It is necessary to have the milk quite cold before the other ingredients are added, as it would otherwise curdle.—*American Druggist*, April, 1888.

Eye Inflammation dependent upon Lesions of Dental Branches of the Fifth Nerve.

In the *N. Y. Medical Journal*, April 14, 1888, Dr. F. W. Marlow reports three cases illustrating the dependence of eye-inflammation upon irritative lesions of the dental branches of the fifth nerve. The following is a summary of his paper:

1. The inflammation was most marked at the margin of the cornea. 2. The conjunctival affection was limited to congestion and slight swelling, there being no discharge of matter. It would thus seem probable that the conjunctival symptoms were simply secondary to the corneal. 3. The corneal affection was quite superficial, but extended over a considerable area. In the first case it much resembled that seen in inherited syphilis. In the two last cases there was a tendency to loss of epithelium. Thus it differed from the ordinary phlyctenular type of keratitis, which tends to be more definitely localized in one or more spots, and to be accompanied by well-marked ulceration and the development of blood-vessels on the cornea.

4. In all the cases there were variations in the condition from time to time, the symptoms never entirely disappearing (with the exception of those of the left eye in one case) in spite of the long-continued use of the usual local and general treatment.

5. When the dental irritation was removed the eye-symptoms disappeared rapidly and completely in each case, and so far without relapse.

There can be little doubt, he says, that the removal of the dental irritation and the disappearance of the eye-symptoms stood to one another in the relation of cause and effect, and he thinks it may fairly be said that the dental irritation aggravated and prolonged the eye-inflammation, if it did not, as indeed seems very probable, constitute the original exciting cause of the trouble. If we admit, he concludes, that the condition of the teeth influenced the eye trouble in any way in these cases, it becomes evident that a dental lesion too slight, or at any rate not of a nature to call attention by symptoms to itself, may yet be sufficient to exert such an influence.

Ohio State Medical Society.

The forty-third annual meeting of this society will be held in Columbus, Ohio, June 13, 14 and 15, 1888. The sessions of the society will be held in Wirthwein Hall, the first session beginning at 2 P.M., Wednesday, June 13. A very full and interesting series of papers is on the programme.

NEWS.

—Dr. Frank P. Foster, editor of the *New York Medical Journal*, is said to be lying ill with perityphlitis.

—A Chinese surgeon, named Leon Jack, has recently arrived in New York and established himself in practice.

—The Medical Examining Board of Virginia has examined thirty-three graduates in medicine for license to practice medicine in Virginia. Twenty-six of the applicants passed, and seven were rejected.

—Dr. F. C. Shattuck has been appointed Jackson Professor of Clinical Medicine in Harvard University. Dr. Whittier, who has been Assistant Professor of Clinical Medicine for sixteen years, has resigned.

—Dr. William G. Goddard, who died in Boston, May 2 , was the oldest living graduate of Harvard College, the only survivor of his class, and the oldest graduate of the Medical School. He was born in 1796.

—Dr. Curschmann, Director of the Medical Department of the General Hospital, Hamburg, has been appointed to the Professorship of Clinical Medicine at Leipsic, made vacant by the death of Professor E. L. Wagner.

—A recent writer in the *British Medical Journal* declares that excessive tea drinking is the cause of early decay of the teeth, possibly through so altering the normal secretions of the mouth as to permit the development of acids and micro-organisms.

—Dr. William White, for many years the army apothecary at the office of the attending surgeon of the United States Army in Washington, D. C., resigned that office in May, on account of ill health. Dr. White has served twenty-seven years, under six different surgeons-general, and was the only man holding office as army apothecary. He was appointed from Pennsylvania.

—During the four weeks ending Tuesday, May 22, the following cases and deaths from infectious diseases were reported to the Sanitary Bureau of the Health Department of New York City: Typhus, 1 case; typhoid fever, 31 cases and 17 deaths; scarlet fever, 772 cases and 135 deaths; cerebro-spinal meningitis, 20 cases and 21 deaths; measles, 602 cases and 34 deaths; diphtheria, 734 cases and 213 deaths; small-pox, 66 cases and 24 deaths.

HUMOR.

A PHYSICIAN says: "If a child does not thrive on fresh milk, boil it." This is too severe. Why not spank it?—*Sinapore Review.*

A UNITED STATES SENATOR who has been called the silver-tongued orator, recently attacked a political opponent in such a caustic fashion that a correspondent of the *New York Evening Post* suggests that his title be changed to "nitrate-of-silver tongued."

AN EDITOR'S MINORITY.—Editor (to young man)—"Your article, I am sorry to say, is hardly up to our standard."

Young man—"Why, my mother thinks it's clever, my wife thinks it's clever, and I think it's clever—three to one, sir; the balance is in my favor."—*The Epoch.*

NOTHING SERIOUS.—Miss Clara (to Featherly, who is making an evening call)—"Poor little Bobby swallowed a penny to-day, and we've all been so much worried about it."

Featherly (somewhat at a loss for words of encouragement)—"Oh, I—er—wouldn't worry, Miss Clara; a penny is not much."—*Harper's Bazar.*

A MIND READER.—The waiter expostulates with a guest for summoning him by a snapping of the fingers, with the remark:

"Are you calling for the dog, sir?"

"Goodness!" exclaimed the guest, "are you a mind reader?"

"Why do you ask?" inquired the waiter.

"Why," returned the guest, "I was about to ask for the sausage."

A LITTLE BUFFALO GIRL was not feeling well, and her parents suggested that she might be about to have chicken-pox, then prevalent. She went to bed laughing at the idea, but early next morning went into her parents' room, looking very serious, and said: "Yes, it is chicken-pox, papa. I found a fedder in the bed."—*Christian Leader.*

A THREE-YEAR-OLD PHILADELPHIAN had heard her parents discuss hygiene until her infant mind was soaked with the subject. One day her dear old grandmother said—meaning to give Bessie a piece of cake—"Bessie, what do you always have after your bath?" The child regarded her grandmother for a moment with inquiring eyes, and then replied: "Reaction."—*Christian Intelligencer.*

IT SEEMS IT IS VERY IMPROPER to question a physician as to the special ailments of one of his patients. On the ordinary grounds of courtesy such a question is impolite, but one can imagine circumstances under which it is pardonable. Somebody who was not informed ventured to ask a Winchester doctor not long since what was the matter with a friend who was under his care. "Matter?" grunted the disciple of Æsculapius. "Matter? Why, she's sick."

LITTLE WILLIE HAD HAD THE SUBJECT of a new brother or sister mentioned to him as a probability in the near future. One morning the nurse called him and said: "Willie, here is a little sister the angels brought you last night." "Oh! let me see!" cried Willie in glee; "the angels never had any parasols, did they?" "Why, what a question. Why do you say so?" "'Cause they let her get sunburnt. She is right red. Take care, let me by, quick." "Where are you going?" "Going to tell mamma. She don't know yet."—*The Colonel.*

OBITUARIES.

EDWARD S. DUNSTER, M.D.

Dr. Edward S. Dunster, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children and Clinical Gynæcology in the University of Michigan, died May 3, 1888, at Ann Arbor. Professor Dunster was a lineal descendant of Henry Dunster, the first President of Harvard, and was born at Springvale, Me., in 1834. He took the degree of M. A. at Harvard in 1856; M.D. at the University of the City of New York in 1859; was Demonstrator of Anatomy at Dartmouth College from 1859 to 1860; Surgeon in the United States army from 1861 to 1866; Professor of Obstetrics and Diseases of women in the University of Vermont from 1868 to 1874; editor of the New York *Medical Journal* 1866 to 1871. Since 1874 he had held a Professorship in the University of Michigan. He was also the author of several medical works.

CHAUNCEY L. MITCHELL, M.D.

Dr. C. L. Mitchell, an old and well-known physician of Brooklyn, died in that city May 8. He was born in New Canaan, Conn., November 10, 1813. After graduation from Union College, Schenectady, he studied in the Medical Department of the University of the City of New York, from which he was graduated in 1836. He was a member of the New York County Medical Society, the New York Academy of Medicine, the American Medical Association, and the Kings County Medical Society, of which he was thrice chosen President. He was consulting physician to the Long Island College Hospital, St. John's Hospital, and the Home for Aged and Infirm Men.